

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report – Non-Construction

ROLE: SSHO

DATE: 10/5/18

WEATHER: @ 1030 am 65°F, sunny, clear, no wind
humidity 40%

WELL ID: 59, 52, 54

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Love Andrews</u>	EA - Site Health and Safety Office
<u>Matt Kennedy</u>	<u>High Mesa</u>
<u>LeRoy Morehead</u>	<u>High Mesa</u>

2. OPERATING EQUIPMENT

<u>PID - mini Rave 3000</u>
<u>Thermo-PDR dust meter</u>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

<u>Hydro knifed for utilities to 8ft or deeper</u>
<u>in KAFB 10659, -52, -54, and -55</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Meet on site - H&S Brief - High Mesa, EA</u>
	<u>High Mesa Begins - mark location w/ 14" mark</u>
	<u>on surface</u>
<u>0736</u>	<u>Begin Hydro knife at KAFB-106059</u>

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Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
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4. WORK PERFORMED (Continued)

0750	- take PID & Dust Readings
0815	- Hole ~ 8 ft 4" deep & 18" wide at top & narrower ~ 12"-14" at depth - asked them to widen all to 14" to depth - Nothing of concern observed in side walls
0818	- widening hole at depth - nothing of concern exposed
0830	hole at least 14" to total depth - - move to Next Location, secured hole w/ traffic barrier - Sawic crew on site having H&S brief, will park rig on it shortly
0841	- mark 14" circle around KATB-10652
0843	Begin hydroknife at S2
0849	pid = 0.0 ppm & dust measurement @ 0.94 mg/m3 - Hole ~ 8' 3" deep and ~ 14" wide - widening up some narrow places ~ 7ft & bags - hole widened - total depth 8' 3" & 14" wide - Nothing of concern noted in side walls
1000	Hydrovac truck/trailer to get water on base as directed by Mark Green of Cascade
1011	- place steel plate over S2 hole (4' x 4' x 1")
1011	Mark Green ^{Mark Green} Supervising - Lane to Next Location for Hydroknife - KATB-10654
1107	High dose setting up to hydroknife S4
1026	Begin Hydroknife at S4
1105	Hole is 8.5 ft deep & 14" wide - need to widen & even out at bottom // 1107 - widening/boring w/ hydroknife
1117	S4 hydroknifed to 8.5 ft bgs, 14" wide - Nothing visible

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Law Address
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

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Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 10/5/18

4. WORK PERFORMED (Continued)

	in sidewalls of concern - only a couple tree roots broken by hydroknife ($\frac{1}{4}$ " & $\frac{1}{2}$ " in diameter)
1120	pack up hydroknife trailers // 1127, Cascade using forklift to place 4'x4'x1" steel plate over hole
1133	steel plate over hole, edges covered w/ dirt to avoid a trip hazard. - asked Robert Parker to get a traffic cone placed on it
1138	High Mesa to Truman Yard to empty vac truck, trying to get a hold of Mark Green to arrange forklift/hopper
1205	Lane (EA) and High Mesa at Truman Yard waiting for Cascade to help unload cuttings from vac truck into designated Roll off - - R. Parker on site by ^{traffic} cones for S5 - Lane to BFF trailer for Waste Management binder
1220	Cascade moving from Truman Yard to Truman yard & unloading hoppers from trucks & stuff from hoppers before they can assist w/ hydroknife cuttings
1245	- unloading vac unit into hopper - label Roll-off "VZ - hydroknife mud"
1304	thead to Bullhead Park. to hydroknife KAFB-10655 - Arrive on site - traffic control is set up
1328	Begin to saw cut asphalt // 1347 - chipping out asphalt w/ pry bar // 1355 Begin hydroknife at S5
1435	hole for S5 is 8.5 ft below top of asphalt - widening bottom & sides Near bottom
1443	final depth of S5 hydroknife = 8.5 ft below top

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andrew
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

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Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report – Non-Construction

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4. WORK PERFORMED (Continued)

	of asphalt and 14" in width, side walls show nothing of concern only a few small free roots ($\le 1/4''$) & a couple catclaw pieces up to 3".
1450	Robert off site to help Earl & Gary set up Sonic drilling sample management area. - waiting at S5 for Cascade to bring steel plate
	- Cascade brings plate by forklift
	- steel plate on hole 4x4x1" w/ traffic cone on top
1608	unload vac trailer unit into hopper & rinse out into hopper
1615	Dump hopper into roll off "VZ-hydroknife mud"
	- Roll off secured & labeled on 3 sides
1620	High Mesa off site // 1644 Cascade leaving site
	Land # off site - gate locked & secured
	All off site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name: Love Andress Signature: [Signature]

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Reviewed by: _____ Initials: _____ Reviewed date: _____

**Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report – Non-Construction**

ROLE: SSMO

DATE: 10/5/18

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
<u>E. Morse</u>	EA - Site Manager/Supervisor
<u>G. Pesselle</u>	EA - Site Health and Safety Office

2. OPERATING EQUIPMENT					
Team #1		Team #2		Spare	
YSI Professional Plus 15K101398 Wh0003	<input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001	<input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002	<input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005	<input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004	<input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006	<input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008	<input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009	<input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007	<input type="checkbox"/>
Solinst Water Level Meter 253054	<input type="checkbox"/>	Solinst Water Level Meter 253053	<input type="checkbox"/>	Solinst Water Level Meter 253056	<input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
<u>0700</u>	<u>Arrive @ BFF vadose zone area, S-9.</u>
	<u>- Note E. Morse has DQCR for S-9 activities.</u>
	<u>This DQCR for S-5 mobilization</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0710</u>	<u>MAS mtg for S-9 daylighting of boreholes</u>
	<u>of vacuum truck forms kept by L. Andrews</u>
	<u>G. Pesselle to wait for Cascade for their mob</u>
	<u>to site @ Truman yard.</u>

DATE: 10/5/18

4. WORK PERFORMED (Continued)	
1105	TO meet Cascade & contractor get
1111	@ "Zia Park" laydown yard. M&S mts
	TO unload pipe from FLT transport.
1310	TO Truman
1233	Unloading cuttings from day-lighting
	of 3 of 4 holes planned for today. Into
	hopper & then into on-site soil roll off
	TO meet FLT, then wait for forklift @ Zia
	yard
1342	Forklift @ Zia yard, TO unload decom
	pad (metal pad) next to Baker tank.
1400	Cascade to drop forklift @ Truman, & to
	get rig from an in-town shop. Then they
	will come back to Truman to help unload
	the 4th & last load of soil from the
	hydrovac. GO to S-9 site.
1504	S-9 some crew leaving S-9 site. 1540 Lane @
	site to locate & setup
1557	Lane to last day-lighted hole to cover w/ Cascade
1615	Offsite

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications above.

G. Dassel
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

10P2

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

ROLE: SSHU

DATE: 10-5-2018

WEATHER: Clear/Mild 10659

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
<u>Earl Morse</u>	<u>EA - Site Manager/Supervisor</u>
<u>Earl Morse</u>	<u>EA - Site Health and Safety Office</u>
<u>James Dye</u>	<u>Cascade</u>
<u>Roger Rodriguez</u>	
<u>Nathan Wilson</u>	
<u>Bryan Nydoster</u>	
<u>Martin Aranda</u>	<u>ACT</u>

2. OPERATING EQUIPMENT

Team #1	Team #2	Spare
YSI Professional Plus 15K101398 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005 <input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006 <input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- Mob equipment/personnel on to 59 drill site
- Prepara-start of drilling

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Arrive at site, Gary, Bob and High Mesa arrives</u>
<u>0730</u>	<u>Rot holing begins</u>
<u>0755</u>	<u>Some rig and crew arrive on-site</u>
<u>0815</u>	<u>Safety Brief / orientation</u>

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report -- Non-Construction

ROLE: Geologist

DATE: 10/6/18

WEATHER: Windy, clear, sunny

WELL ID: KAFB-10699

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Earl Morse / Bone Backish	EA - Site Manager/Supervisor
Gary Pesselle	EA - Site Health and Safety Office
Carlos Murayga / Joshua Messinger	EA - Geologists
Yam McKeage / Robert Barker	EA - Sample Handling
James C. Due	Cascade - Drillers Helper
Nathan Wilson	Cascade - Drillers Helper
Roger Rodriguez	Cascade - Driller

2. OPERATING EQUIPMENT

PID, Dust Meter - See H&S forms

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- Kick off Safety meeting
- Drilled to 126 ft bgs
- IDW secured - 0.5 yards in Roll off "KAFB-10699-1"
- No visitors on site

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 Arrive on site - Cascade & EA
 - Kick off Safety Meeting w/ everyone
 - Calibrate PID & Dust Meter
 ~0800 - Begin Drilling, take ~~W~~ Readings in Refrigerator truck

Reviewed by: _____

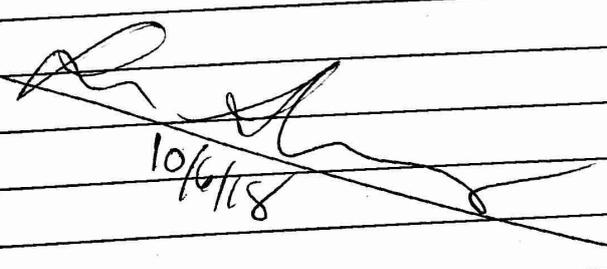
Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 10/6/18

4. WORK PERFORMED (Continued)

	- take temperature readings as soon as the cores came off sonic rig & refrigerated immediately
	- cores logged, photographed & PID readings taken - core refrigerated immediately after logging ^{phys}
1156	Break for lunch // 1230 end lunch
1236	Devon Terrence on site to check on things
1308	Resume drilling
1442	Devon Terrence called Mark Phares w/ USAACE to update on progress - we were at 100 ft bgs with no temperature control issues & no PID hits (all 0.0 ppm)
1645	Drill to 126 ft bgs - stop for day - site clean up, FIDW put in roll off - ~0.5 cubic yards from drillers hopper (from cleaning at hole between runs) & ^{a few} cuttings from logging & PIDS -
	- Cores stored in refrigerated truck overnight
1800	Cascade off site
1830	EA off site
 10/6/18	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Anderson
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

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Reviewed date: _____

Reviewed by: _____ Initials: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: SSH0

DATE: 10/7/18

WEATHER: @ 7am 59°F - Partly Cloudy, 45% humidity, wind 4 mph

WELL ID: KAFB-10659

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bernie Beckwith	EA - Site Manager/Supervisor
Gary Desselte	EA - Site Health and Safety Office
Lane Andrews / Carlos Montoya	Geologists - EA
Kevin McKeage	EA
Robert Barker	EA
Roger Rodriguez	Cascade Driller
James Doe, Nathan Wilson	Cascade Drillers Helpers

2. OPERATING EQUIPMENT	
PID miniRac 3000) see H&S forms
Thermo PDR-BP Post meters	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- H&S Brief
 Drill to 200 ft bgs
 No visitors to site
 IDW secured in roll off ~~"KAFB"~~ "59-1"
 - total soil IDW in roll off ~ 2 cy - no water

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 Meet on site - H&S Brief
 Discuss process yesterday & ways to optimize
 Drillers warm up equipment - set up work areas
 0800 - Resume drilling

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 10/7/18

4. WORK PERFORMED (Continued)

1158	Break for lunch
1245	Back from lunch, resumed drilling
1600	Lighting was observed, took shelter in Field Trailer for 30 mins
1630	Resumed Drilling
1704	Driller informed US that while driving casing, formation was tight and had to pull up casing. When doing so the hole collapses into itself previous depth 200ft, now 185ft. Driller will have to clean out the hole before resuming
1750	clearing out hole - will not pull more core today K. McKeage off site // 1800 Carlos M off site
1800	tripping back in hole, dump hopper of TDW soil Secure Roll off
1806	tripped back in hole for tomorrow - secure site drillers pack up - checked fuel in Refrigerated truck is still full - "7/8" on gauge & visible looking into gas tank - - keys to trucks secured & trucks locked
1816	Cascade off site - Secure Gates to yard - Scan paperwork -
1830	All off site

10/7/18

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Love Address & _____
 Name Carlos Mantuya

Signature _____

EA Engineering, Science and Technology Inc., PBC

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Reviewed by: _____ Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 8 Oct 18

WEATHER: Partly Cloudy

WELL ID: KAFB-10655

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
Bob Marley	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Mark Green	Cascade - Lead Driller
Forest Chaffin / Max Douglas	Cascade - Driller's Helpers
Robert Barker	SA - Junior Geologist
2. OPERATING EQUIPMENT <i>see individual forms</i>	
<i>Jm</i>	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	Met at Truman Yard - H&S briefing
-	Visitors at site - AAA, ACT
-	IDW: S5-1 onsite with approximately 16 yards of waste S5-2 onsite - empty
-	Installed 11 3/4" casing to 200 ft bgs
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0710	H&S briefing: discussed traffic, fork lift operations/spotter, seat belts, overhead hazards, PPE
0720	drillers prep equipment to mob to site
0915	Joshua M. to site to coordinate rollout configuration

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report – Non-Construction

ROLE: SSHU

DATE: 10/8/18

WEATHER: 60° Partly Cloudy

KAFB-10659

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bernie Bochish	EA - Site Manager/Supervisor
Gary Desselte	EA - Site Health and Safety Office
Line Address / Carlos Montoya	Geologist / EA
Kevin McKeage	EA
Roger Rodriguez	Cascade Driller
James Duc / Nathan Wilson	Cascade Drillers Helpers

2. OPERATING EQUIPMENT			
Team #1	Team #2	Spare	
YSI Professional Plus 15K101398 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>	
MiniRAE 3000 592-915778 Wh0005 <input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006 <input type="checkbox"/>	
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>	
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>	

Sonic Drilling Rig, Forklift, PID MiniRae 3000, Thermo DR-BP, SST meter

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
	H&S Meeting
	Drilled to 232' bgs
	2 1/3 yards of soil in IDW
	Kathryn Lynnes onsite but did not enter Exclusion Zone

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0700	EA and Cascade onsite
0715	H&S meeting occurred
0730	Resumed Work, Drillers setup up pipe track
0830	Resumed Drilling

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
 Daily Quality Control Report - Non-Construction

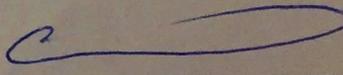
DATE: 10/8/18

4. WORK PERFORMED (Continued)

0820	Lane Address offsite / Carlos Montoya offsite
0845	Carlos Montoya onsite
0910	Lane Address offsite
0915	Bernie Boehish offsite
0938	Cascade on Break
0945	Cascade Back ^{on} from Break
1025	Eurl Mize onsite
1035	Kathya Lynnes visited site, she had no PPE and did not come onsite
1047	Kathya Lynnes offsite
1245	Broke for lunch on
1325	Back from lunch on
1137	Drillers informed US that a Drill rod has been Broken down hole and is preparing to retrieve
1152	Broken Drill stem was successfully Retrieved
1245 1406	Broke for lunch
1325	Returned from Lunch
1406	Drillers informed us at another Drill Rod has broken down hole and is preparing to retrieve, Called Bernie Boehish to inform of situation
1427	Broken Drill stem was successfully retrieved
1428	Bernie Boehish onsite // 1450 Bernie Boehish offsite
1525	Drillers attempted to retrieve 4ft Core (220-224), Core was lost on return trip. Driller will attempt to retrieve disturbed Core
1540	Bernie Boehish ^{em}
1539	Bernie Boehish onsite

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Carlos Montoya
Name


Signature

EA Engineering, Science and Technology Inc., PBC

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Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 9 OCT 18

WEATHER: Partly Cloudy; low 60s

WELL ID: KAFB-10655

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Bob Marley</u>	EA - Site Health and Safety Office
<u>Joshua Messenger / Robert Parker</u>	EA - Geologists
<u>Mark Green</u>	Cascade - Lead Driller
<u>Max Douglas / Forest Chaffin</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

<u>JM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Every one on site - H & S briefing</u>
-	<u>Installed 9 5/8" casing to 400 ft bgs</u>
-	<u>IDW - S5-1 at EA IDW yard with 16 yards; S5-2 on site with 10 yards</u>
-	<u>Visitors on site: ACT</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Joshua M. and Robert Parker on site - Bob Marley and drillers met @ Truman Yard - drillers to mob equipment to site</u>
<u>0720</u>	<u>Lead driller on site completing fueling - 0758 Bob M. and drillers helpers on site with equipment to finish drilling to TD</u>

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 9 OCT 18

4. WORK PERFORMED (Continued)	
0800	H&S briefing: discussed fork lift op., crush haz., spotters, pedestrians, over head haz., dust/noise - PPE - close to water table, if product is spent notify S5H0
0815	drillers begin setting up site to drill to TD
0840	drillers begin tripping in 9 5/8" casing to 200 F - Brian Nydoske on site
0905	drillers on water break - Brian Nydoske off site
0908	drillers off water break - 0925 9 5/8" casing tripped in to 200 F bgs
0940	drilling resumes - 1045 ACT onsite - Earl M. on site
1105	Earl M. off site - 1110 ACT off site with S5-1
1210	drillers on lunch - 1250 drillers off lunch - 1255 drilling resumes
1335	drillers reach TD - 9 5/8" casing installed to 400' bgs
1340	drillers begin tripping out 8 1/2" tricone bit
1345	drillers on water break - 1355 drillers off water break
1410	on stand down due to lightning within 4 miles of site
1440	off stand down - work resumed
1450	8 1/2" tricone tripped out - drillers begin site cleanup
1527	Robert B. off site to BFF field trailer
1530	Brian N. on site
1608	Brian N. off site
1620	Driller and Forest C. off site
1650	Driller and Forest C. on site
1705	Drillers off site to mob the rest of their equipment to EA field office staging area
1715	Joshua M. off site
1730	Bob. M. off site
	JM

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Joshua Messenger
Name

John M...
Signature

EA Engineering, Science and Technology Inc., PBC

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Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 10/9/18

WEATHER: 59 F° Mostly cloudy

WELL ID: 1CAF8-10659

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Beckwith	EA - Site Manager/Supervisor
Gary K. Desselte	EA - Site Health and Safety Office
Kevin Andrews / Carlos Montoya	Geologist / EA
Kevin McKeage	EA
Roger Rodriguez	Cascade Driller
James Doe / Nathan Wilson	Cascade Drillers Helpers
Bryan Nydoske	Cascade

2. OPERATING EQUIPMENT

Sonice Drilling Rig, ForkLift, PID MiniRae 3000, ThermoPDR-BID
Dust meter

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- H+S Meeting
 - Drilled to 276' bgs
 - Army Core visited the site
 - Cores have been ^{cm} ~~had~~ to warm, Dry Ice and Ice Water are being used to cool the core barrel. The core barrel is set on top of Dry Ice ^{can} ~~be~~ ^{Before being Deployed} ~~cleaning~~ at the hole, ~~then~~. Ice Water is used by ^{pouring} ~~deployment~~ down hole
 Sampled ^{cm} at V-59-061018-102 and V-59-071018-174

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	EA onsite / Cascade onsite
0715	H + S Meeting
0730	EA and Cascade had a meeting to discuss ^{High} core temps, and how to mitigate said temps. A trough full of ice will be

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 10/9/18

4. WORK PERFORMED (Continued)	
	Used to set the core barrel in to try to keep temps down. The use of Dry Ice was discussed and may be used later in the day
0823	Resumed Drilling // 0827 - tried adding 10lbs ice to hole - to keep temps down - ice bridged before reaching depth
0833	Resume drilling
0933 0945	Bernie Bobritz offsite to get ICE
0944	Bryan Nydoske onsite
1045	Bryan Nydoske offsite
1118	Earl Morse onsite
1230 1240	Army Core onsite (Mark Phares & Amy Corlone)
1240	Cascade offsite for lunch // 1250 Army Core, Lane & Bernie offsite
1335	Cascade onsite from lunch, resumed Drilling
1353	Bryan Nydoske onsite
1418, on 1400	Lightning was observed ^{can} observed, taking shelter in Field Trailer for 30 min.
1438	Resumed Drilling
1515	Roger Rodriguez informed us that during the bussing of Core 264-266' he smelled a HC odor. Gary Dessel check Drilling Rig platform and hopper with PID and did not observe any positive Readings
1540	Drilling Stopped due to a leaky Gauge, Drillers on the phone with mechanic to troubleshoot. Bryan Nydoske will bring a New Gauge.
1556	Drilling ^{con} Drillers are going to trip ^{continue Drilling} to the bottom of the hole while Bryan Nydoske Arrives with New Gauge
1700	Drillers informed us that the hole caved into a 4ft Annulus from 276' ^{cm}

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Carlos Montoya
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: Appendix B

Initials: Page 21 of 438

Reviewed date: _____

**Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report -- Non-Construction**

DATE: 10/10/17

4. WORK PERFORMED (Continued)

0810	Resumed Drilling
0830	Bernie Backus offsite to get Dry ICE
0915	Fresh and Clean stopped by to clean Port-A-John and dropped off a second Port-A-John
1040	Nathan offsite, headed to pick up more casing
1105	Mark Green of Cascade onsite to drop off materials
1152	Bernie Backus offsite
1205	Break for lunch
1255	Back from lunch
1436	Stephen Busby and Keylana Robinson onsite to gauge wells KAFB-106060 & KAFB-106061
1516	Stephen Busby and Keylana Robinson offsite
1546 ¹⁵⁰	Drilling stopped for the day, site clean-up started
1810	Drillers off site
1830	Site closed, end of day

46

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Gregory Dosselle for

Name

Callos Mendez

Signature

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: SS140

DATE: 10/10/18

WEATHER: Clear, Cool 40-55°F

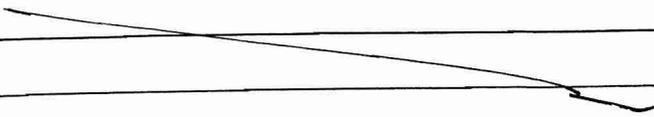
WELL ID: KAFB-106-55

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
Bob Marley	EA - Site Health and Safety Office
Forest Chaffin	Cascade
Mark Green	Cascade
Max Douglas	"
2. OPERATING EQUIPMENT	
Forklift, Support trucks, steam cleaner	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
1 -	Secure temporary well head
2 -	Decon drill pipe and rig
3 -	Stage equip & supplies at onsite laydown area
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0710	onsite, conduct daily H&S meeting
0725	Secure temporary well head with steel cap, tack weld in place
0745	Head on base for decon, equip staging

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 10/10/18

4. WORK PERFORMED (Continued)	
0755	At Cascade laydown yard near GWTS, Cascade
	Setting up to decon equipment
0925	Begin steam cleaning of drill pipe
1020	Begin steam cleaning of drill rig
1100	Place drill pipe in drive casing using forklift
1145	Crew heading to Truman Yard
1215	Crew takes lunch break
1245	Load equipment at Truman Yard for transfer to onsite yard.
1330	Leave Truman Yard for on base laydown yard with loaded truck of pipe and well materials
1430	Pipe truck delayed at Truman gate, now onsite at laydown yard.
1450	Begin unloading truck, stage pipe along west side of laydown yard.
1510	Unload well materials
1545	Back at Truman Yard to load materials
1640	Leave Truman Yard with loads
1710	Crew on base to unload materials/equip from Truman Yard
1745	Offsite
	
	Bob
	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Bob Marley
Name

Bob Marley
Signature

EA Engineering, Science and Technology Inc., PBC

DOC 0002 of 2

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

ROLE: SSHO

DATE: 10/11/18

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
Bob Marley	EA - Site Health and Safety Office
Mark Green	Cascade
Forrest Chatten	"
Max Douglas	"

2. OPERATING EQUIPMENT					
Team #1		Team #2		Spares	
YSI Professional Plus 15K101398 Wh0003	<input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001	<input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002	<input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005	<input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004	<input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006	<input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008	<input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009	<input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007	<input type="checkbox"/>
Solinst Water Level Meter 253054	<input type="checkbox"/>	Solinst Water Level Meter 253053	<input type="checkbox"/>	Solinst Water Level Meter 253056	<input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- ① - load equipment for KAFB-106-54 setup
- ② - Setup ARCH rig at KAFB-106-54
- ③ - Saw cut concrete at KAFB-106 S1 location at BFF

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0715 Daily Safety Meeting at sonic rig drills. he
0730 travel to onbase lay down yard

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 02735DM02
Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 12/11/19

WEATHER: 65° Cloudy

WELL ID: KAEB-10659

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bernie Buchzik	EA - Site Manager/Supervisor
Erny Deselle	EA - Site Health and Safety Office
Line Adress / Carlos Mataya	Geologist/EA
Kevin McKeage	EA
Roger Rodriguez	Cascade Drille
James De / Nathan Lulson	Cascade Drillers Helper
Bryan Nydase	Cascade
2. OPERATING EQUIPMENT	
Sonic Drilling Rig, Fork Lift, PID Mini Rac 300, Thermo PDR-5P	
Dust Meter	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
H & S Meeting	
Sonic Drilling to 386 ft bgs	
4.8 cy of so.7 ISW in Roll of #5A-1	
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0700	EA and Cascade onsite
0715	H & S Meeting conducted
0745	Drilling crew started loading Drill Rod
0818	Resumed Drilling

Reviewed by: _____ Initials: _____ Reviewed date: _____

**Kirtland AFB Bulk Fuels Facility Vadose Zone Coring – 62735DM02
Daily Quality Control Report – Non-Construction**

DATE: 10/11/18

4. WORK PERFORMED (Continued)	
0930	Beome Beshish said Arch Rig Geo got anomalous anomalously high hits of VOC's in PID samples (up to 25 ppm) and asked us to calibrate their meter and run simultaneous PID Reads with both Arch Rig and Sonic Rig meters to determine if they were the high readings are due to the meter.
0935	Calibrated MiniRae 3000 SN: 592-918867 Geotech #: 5808 which is the meter used @ KAFB-10659 Arch Drill Rig PID used @ KAFB-10659 is MiniRae 3000 S/N: 592-905125 Geotech #: 3245
1125	Bob Murly onsite
1200	Walter Lutzon offsite
1219	Walter Lutzon onsite
1220	Bob Murly offsite
1230	Break for lunch
1300	Back from Lunch
1600	Drilling has stopped for the day
1615	Carlos Montoya off site giving Bob Barker a ride to office
1620	Cascade offsite
1715	EA offsite

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Carlos Montoya
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 10-16-18

WEATHER: Partly Cloudy; Windy

WELL ID: KAFB-10654

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Dave Weith	EA - Site Health and Safety Office
Joshua Messenger / Robert Baker	EA - Geologists
Mark Green	Cascade - Lead Driller
^{Dwight Matthews} Max Douglas / Forrest Chatlin	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT *see individual forms*

<i>JM</i>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	H & S briefing
-	11 3/4" casing installed to 200 f bgs
-	9 5/8" casing installed to 340 f bgs
-	IDW: SH-1 on site with 17 yards; SH-2 on site with 0 yards sm 1.5 yards
-	Visitors on site: AAA, ACT

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0740	On site - H & S briefing: discussed hand placement/safety, noise/lost - PPE, uneven ground, forklift ops. - spotters, pedestrians
0750	continued with site set up / drill prep
0835	drilling resumes

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 10/16/18

WEATHER: 52°F Cloudy

WELL ID: KAFB-10659

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Rayne Bochsich	EA - Site Manager/Supervisor
Denise Witt	EA - Site Health and Safety Office
Lane Andrews / Carlos Mataya	EA / Geologist
Kevin McKeage	EA
Roger ⁱⁿ Rodriguez	Cascade Drillers
James Doe / Nathan Lovison	Cascade Drillers Helpers
Ryan ⁱⁿ Ny	
2. OPERATING EQUIPMENT	
Sonic Drilling Rig, Forklift, PID MiniRae 3000, Thermo PDR-BP	
Dust Meter.	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
H&S meeting	
Drilled to 436 bgs	
5.8 cy of IDW Soil in Roll-off #59-1	
Sampled VNP-SF-161018-415	
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0700	H&S meeting EA and Cascade on site
0730	Cascade needs to replace oil filter on rig
0800	Drill Rig maintenance completed, Drill Rig warm up started
0820	Resumed Drilling

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report -- Non-Construction

ROLE: SITE SUPERVISOR

DATE: 10/17/18

WEATHER: COLD, WINDY

WELL ID: KAFB 10651

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
BERNARD BOCKISCH	EA - Site Manager/Supervisor
	EA - Site Health and Safety Office
MICHAEL CARINO	PRECISION CONCRETE SERVICES
LEROY CARINO	" " "

2. OPERATING EQUIPMENT

CONCRETE SAW

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

09:08	PCS ARRIVES, DAILY TAILGATE SAFETY MTG
09:20	AT KAFB 10651, SET UP AND CUT CONCRETE
10:10	COMPLETE CUTS, CLEAN UP, OFF SITE.

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 10/17/18

WEATHER: 50° Windy & Cloudy

WELL ID: KAFB-10639

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bernie Bodovich	EA - Site Manager/Supervisor
Denise Witt	EA - Site Health and Safety Office
Gene Andrews / Carlos Montoya	Geologist / EA
Roger Rodriguez	Cascade Driller
James Doe / Nathan Livilson	Cascade Driller's helper
Bryan Nydore	Cascade

2. OPERATING EQUIPMENT
Sonic Drill Rig, Forklift, PID MiniRae 3000, Thermo PDR-BP Dust Meter

3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H & S Meeting
Drilled to 476 bgs
5.8 cy of soil IDW in Roll off # 59-1 + 0.5 cy in 59-2
total Soil IDW 6.3

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0724	H & S meeting
0734	Drillers started to load casing into Pipe Truck
0810	Resumed Drilling
1145	Broke for lunch // 1239 Back from lunch

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report – Non-Construction

ROLE: SSH

DATE: 10-17-18

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
<u>David West</u>	EA - Site Manager/Supervisor
<u>David West</u>	EA - Site Health and Safety Office
<u>Mark Green</u>	<u>Cascade</u>
<u>Forest Chatton</u>	<u>Cascade</u>
<u>Dwan Mathews</u>	<u>Cascade</u>

2. OPERATING EQUIPMENT		
Team #1	Team #2	Spare
YSI Professional Plus 15K101398 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005 <input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006 <input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
<u>0700</u>	<u>H&S briefing</u>
<u>0725</u>	<u>arrive at laydown yard to load jacks</u>
<u>0819</u>	<u>arrive at boring locations to remove 20' of larger casing from ground.</u>
<u>1020</u>	<u>arrive at laydown yard for decon and prep footing for tomorrow.</u>
<u>1745</u>	<u>EA & Cascade off site.</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: SSHO

DATE: 10/18/18

WEATHER: COOL, ~48°F WINDY

WELL ID: KAFB106 SB

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>BERNARD BOULISCH</u>	EA - Site Health and Safety Office
<u>LEROY MOORHEAD</u>	<u>HIGH MESA</u>
<u>MATT KENNEDY</u>	<u>" "</u>
2. OPERATING EQUIPMENT	
	<u>HYDROVAL UNIT</u>
3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
<u>0720</u>	<u>TGSM, MARS TO KAFB 10653</u>
<u>0826</u>	<u>COMPLETE HYDROVAL AT KAFB 10653. NO UTILITIES OBSERVED</u>
<u>10:30</u>	<u>COMPLETE HYDROVAL AT KAFB 10651. NO UTILITIES OBSERVED</u>
<u>12:00</u>	<u>COMPLETE HYDROVAL AT KAFB 106VI - NO UTILITIES OBSERVED</u>
<u>12:40</u>	<u>COMPLETE HYDROVAL AT KAFB 106VJ. NO UTILITIES OBSERVED.</u>
<u>13:30</u>	<u>CUTTINGS TRANSFERRED TO BOX OFF AND HIGH MESA OFF SITE.</u>
<u>14:54</u>	<u>KAFB 106VI AND VJ SECURED W/ 1"X4'X4' STEEL PLATES. CONCRETE BLOCKS PLACED OVER KAFB 10651 TO SECURE IT. DRAIN PIG SET UP OVER KAFB 10653 TO SECURE IT.</u>
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0720</u>	<u>MEET W/ HIGH MESA CREW. GO THROUGH TGSM. DISCUSS</u>
<u>0730</u>	<u>SET UP CONES AROUND S-3 TO PROTECT WORK ZONE. CREW BEGINS HYDROVALIFE</u>
<u>0826</u>	<u>COMPLETE HYDROVALIFE. NO UTILITIES OBSERVED</u>
<u>0844</u>	<u>FEW WITH WATER</u>

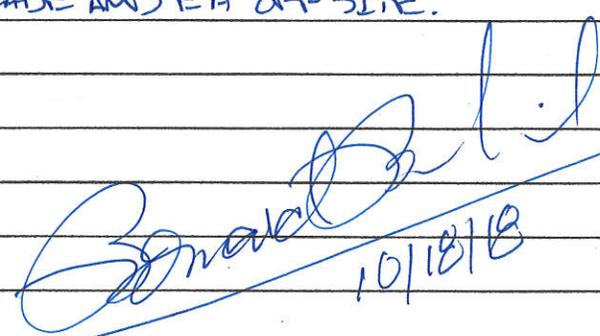
Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 10/18/18

4. WORK PERFORMED (Continued)	
0858	SET UP OVER KAFB 10651 TO BEGIN HYDROKNIIFE
0911	POURED CONCRETE BLOCKS AND START HYDROKNIIFE
10:37	COMPLETED HYDROVAC OF KAFB 10651. NO UTILITIES OBSERVED. CONCRETE BLOCKS WERE PLACED OVER THE HOLE. HIGH MESA OFF TO TRUMAN TO DUMP LOAD AND REFILL W/ WATER.
11:10	HIGH MESA BACK FROM UNLOADING. SET UP OVER KAFB - 106 VI. BEGAN HYDROKNIIFE
12:00	COMPLETE HYDROVAC OF KAFB 106 VI. NO UTILITIES OBSERVED BEGIN HYDROVAC OF KAFB 106 V2.
12:40	HIGH MESA COMPLETED HYDROVAC AT KAFB 106 V2. NO UTILITIES OBSERVED. PACKUP EQUIPMENT AND MGS OFF SITE. OBSERVED 10/18/18
1309	HIGH MESA/CASCADE AT TRUMAN YARD TO UNLOAD HYDROVAC MACHINE. PLACED IN ROLLOFF: V2 HYDROKNIIFE MUD. APPROX. 1/2 FULL
13:30	HIGH MESA OFF SITE. CLOSED POU OFF FOR HYDROKNIIFE MUD.
13:39	CASCADE AND EA OFF SITE.
 10/18/18	
14:54 MET W/CASCADE. PUT 1" x 4' x 4' STEEL PLATES OVER KAFB 106VI AND KAFB 106V2 10/18/18	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

BERNARD BOCHTISCH
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

EA BORING/WELL CONSTRUCTION LOG										
Project: Kirtland BFF					Project Number: 62735DM02.1017					
Drilling Company: HEGH MESA					Start Time/Date: 0730/10/18/18					
Lead Driller:					Completion Time/Date:					
Drilling Method: HYDRO KNIFE					Final Depth:					
Casing Diameter OD: APPROX 12" DIAM. TO 8' DEEP					Bit Type and Outer Diameter					
Boring/Well ID:					Logged By: TS. BACKUSCH Page 1 of					
USCS Soil Type	PID Reading (ppm)	Temperature (C)	UV fluorescence	Samples collected	Depth, ft bgs	Recovery	Soil Description			Well Details
							-- soil type; Munsell color; density (primarily coarse)/consistency & plasticity (primarily -- % sand (include grain size %; fine, medium, coarse, etc.) -- sand minerology -- % gravel -- gravel minerology -- angularity/roundedness -- % fines (silt/clay)			
							<u>KAFB 10653</u> 0'-8" GR. GRADED SAND, TR. SOME F. GRAVELS BROWN, SLT. MOIST			
							<u>KAFB 10651</u> 0-8' - P. GR. SAND, FGRN, SOME F. GRAVELS, BROWN, SLT. MOIST			
							<u>KAFB 106V1</u> 0-8' WP. GR. SAND W/ GRAVEL. F-C GRAVELS TO ~1.5" IN SIZE, SUBROUNDED BROWN, SLT. MOIST. COBBLES TO APPROX. 4", SUBROUNDED. AND COBBLES			
							KAFB 106V2 - AS ABOVE			

Additional Comments:

Recovery: None Partial Complete

SAA = Same as Above Qtz = quartz Fld = feldspar Y = Yes N = No

Samples: V = VOCs/EDB; P = TPH; M = minerology; B = biologic; W = moisture analysis; G = geotechnical; UV = ultraviolet; T = thermal conductivity

R = Rounded, SR = Subrounded, SA = Subangular, A = Angular, VF = Very Fine, F = Fine, M = Medium, C = Coarse

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring – 62735DM02
Daily Quality Control Report – Non-Construction

ROLE: Geologist

DATE: 10/18/18

WEATHER: 50°F Mostly Cloudy

WELL ID: KAFB-10659

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Reine Bochner	EA - Site Manager/Supervisor
Dennis Will	EA - Site Health and Safety Office
Luca Andress / Carlos Montoya	Geologist
Roger Rodriguez	Cascade Driller
James Due / Nathan Luskon	Cascade Driller's helper

2. OPERATING EQUIPMENT

Sanic Drilling Rig, Fork Lift, PID MiniZac 3000, Thermo PDR-BP dust meter

3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H+S meeting
 - Hand safety Training
 Army Core and AECOMX visited site
 Sampled ~~1~~ V, P, B, M-59-171018-475, V, P-59-171018-470
 to ~~5~~ 1.3 cy of ~~HAZ~~ Potential Haz soil IDW in Rolloff 59-2
 5.8 cy of Non Haz soil IDW in Rolloff 59-1

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	EA + Cascade onsite
0715	H+S Meeting
0800	Drillers started Rig maintenance
0815	Drillers informed us that a seal of the rig needs to be replaced

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 10/18/18

4. WORK PERFORMED (Continued)	
	Before Drilling can resume
0940	While installing seal ^{off} on Drill rig a Bolt head broke off in place. Drillers are drilling Bolt out.
0945	Conducted Hand Safety Training
1125	Break for lunch
1145	Back from lunch
1158	ARMY CORP & ARCOM onsite (Mark Phares and Ryan Samuels)
1220	Army Corp & ARCOM offsite
1257	Drill rig warm up started.
1302	R While tripping out the first length of Rod, Drillers observed hydraulic fluid leaking from vicinity of seal which had previously been replaced. Driller said leak was from hose fitting, leak has been resolved - Driller informed us that the Bottom Breaker jaw is not malfunctioning properly and will not hold rod in place. and must be fixed before Drilling can resume
1350	Cascade Drilling offsite headed to take Breaker Jaw Cylinder to be repaired.
1505	Cascade Back onsite, stated to install Breaker Jaw Cylinder
1531	Breaker Jaw cylinder install successfully, Resumed Drilling
1804	Bernie Bohren offsite
1800	Drilling stopped for the day
1830	Cascade offsite
1900	EA offsite

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Carlos Montoya
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____ Initials: _____ Reviewed date: _____

**Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction**

ROLE: SSHO

DATE: 10-18-18

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<i>David Work</i>	EA - Site Health and Safety Office
<i>Mark Green</i>	<i>Cascade</i>
<i>Forrest Clifton</i>	<i>Cascade</i>
<i>Diane Matthews</i>	<i>Cascade</i>

2. OPERATING EQUIPMENT					
Team #1		Team #2		Spare	
YSI Professional Plus 15K101398 Wh0003	<input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001	<input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002	<input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005	<input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004	<input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006	<input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008	<input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009	<input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007	<input type="checkbox"/>
Solinst Water Level Meter 253054	<input type="checkbox"/>	Solinst Water Level Meter 253053	<input type="checkbox"/>	Solinst Water Level Meter 253056	<input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
<i>0655</i>	<i>conduct H&S briefing; warm up equipment.</i>
<i>0745</i>	<i>Move tooling/equipment to S3; start setting up on S3 and relocating tooling/equipment from S4 to S3.</i>
<i>1015</i>	<i>drop day-lighting soil at Truman laydown yard.</i>
<i>1100</i>	<i>arrive back at S3 area to continue setting up.</i>
<i>1200</i>	<i>all set up.</i>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 10/19/18

WEATHER: 64°F Partly Cloudy

WELL ID: VAFB-10659

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie	EA - Site Manager/Supervisor
Denis Vilt	EA - Site Health and Safety Office
Line Address / Carlos Montoya	Geologist / EA
Roger Rodriguez	Cascade Driller
James Drel / Nathan Wilson	Cascade Driller Helpers

2. OPERATING EQUIPMENT

Sonic Drilling Rig, Fork Lift, PDR Min Rax 3000, Thermo PDR - BP Draft Meter

3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H & S meeting
 cy of non haz IDW soil in Roll off #59-1
 cy of haz IDW soil in Roll off #59-2
 Drilled to 491 ft bgs, repairs on rig & pull casing
 Sample collected: VAP-59-101918-490 w/ a duplicate
 & ms/msd

visitors: USACE - Mark Phareuf & Ben Moayad
 IDW on site: roll off "59-1" - 7.8 yds
 roll off "59-2" - 1.6 yds

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 Exit of site
 0720 Cascade onsite
 0725 H & S meeting
 0820 Drilling resumed - Hole collapsed ~ 8ft, must clean out before

DQCR Page 4 of 3

Reviewed by: _____ Initials: _____ Reviewed date: _____

**Kirtland AFB Bulk Fuels Facility Vadose Zone Coring – 62735DM02
Daily Quality Control Report – Non-Construction**

DATE: 10/19/18

4. WORK PERFORMED (Continued)	
	more core can be drilled
0829 0840	During return trip to surface, clean cut material was lost down hole. Driller must make a return trip to retrieve stuff.
0924	Driller continues to have trouble with cleaning out the ^{the} hole and advancing casing.
0945	Driller continues to have trouble with advancing casing.
1045	Driller still has not been able ^{able} to advance casing and is calling their office for advice.
1120	After talking with the Driller's Boss, Driller has advised us that due to not being able to advance casing because of loss of rotation, casing will have to be pulled out until rotation is again achieved.
1154	Resumed Drilling
1250	Bryan Nydose onsite
1310	Break for lunch // Bryan Nydose offsite
1350	Drillers back from lunch, Carlos M to DBS & A to take geotechnical moisture, thermal conductivity samples & Kevin M to get dry ice
1429	pull up 5 ft core 1435 Kevin & Carlos back on site
1504	Army Corps onsite - view operations
1534	Driller advised us that the stinger on the Drilling Rig has cracked in half during the removal of casing, Drilling has stopped - Need to make repairs to casing advance saver
1559	called Fire Department to notify them of Hot Work (welding, grinding) in accordance w/ hot work permit

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name: Carlos Mantoya / Rene Andres Signature: 

EA Engineering, Science and Technology Inc., PBC

2 of 3
DQCR Page 2 of 2

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62736DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 10-19-18

WEATHER: Partly Cloudy, 60s

WELL ID: KAFB-10653

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
David North	EA - Site Health and Safety Office
Joshua Messenger / Robert Barker	EA - Geologist
Mark Green	Cascade - Lead Driller
Forest Chaffin / Duane Matthews	Cascade - Driller's Helpers
2. OPERATING EQUIPMENT <i>see individual forms</i>	
<i>JM</i>	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	H&S briefing
-	Installed 11 7/8" casing to 200 ft bgs
-	IDW: S3-1 onsite with 9 yards; S3-2 on site empty
-	Visitors on site: ACT
4. WORK PERFORMED (indicate location, time, and description of work performed by prime and/or subcontractors)	
0700	Met on site - H&S briefing: discussed dust/noise - PPE, fork lift ops - spotter, pedestrians on bike path, overhead hazards, prairie dog holes
0720	drilling begins - 0805 cyclone hose clogged up - drillers begin to unplug
0810	drillers unplug hose + resume drilling - 0840 drilling stops - drillers begin to replace upper hammer seal

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report -- Non-Construction

ROLE: SSHG

DATE: 20 Oct. 2018

WEATHER: 60s

WELL ID: S-9/55

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
Denize Wilt	EA - Site Health and Safety Office
Roger Rodriguez	Cascade Driller
James Due / Forest Chatham	Cascade Drillers helper

2. OPERATING EQUIPMENT
Sonic drill rig, fork lift, PID mini rae 3000, personal data RAM (dust meter)

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)
- H&S meeting
- Sampled source water (decon water), collected two rinse blanks from sonic sampling rods
3WB-10-20-2018-01, RB-S-9-10-20-2018-01
and RB S-9-10-20-2018-02

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)
0700 EA & Cascade onsite
0715 Safety meeting
0750 Drillers start pulling casing @ 475'
900 Driller still pulling 470-480 Rod, tight, progress inch scale

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 10/21/18

WEATHER: 62° Partly Cloudy

WELL ID: KAFB-10655

1. ONSITE PERSONNEL (Including subcontractors and government employees)

Name	Organization
Bernie Bochuz	EA - Site Manager/Supervisor
Denis Wilt	EA - Site Health and Safety Office
Love Indros/Cadeo Montoya	EA/Geologist
Roger Rodriguez	Cascade Driller
James Due/Arthur ^{cm} Lutzon	Cascade Driller's Helper
Dwane Mathis	Cascade Driller's Helper

2. OPERATING EQUIPMENT

Sonq Drilling Rig, Fork Lift, PID MiniRae 3000, Thermo PDR-BPIDust meter

3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Drilled to 426' ft bgs
 0.3 cy of EDW soil in Roll off # 55-3
 Katie Lynnes visited site but did not enter exclusion zone

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 EA and Cascade onsite
 0740 H+S Meeting
 0750 Drillers and EA site setup started
 0850 ACT Dropped off Roll off # 110925 kate Lynnes visited site but did not come into exclusion zone

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report – Non-Construction

ROLE: _____

DATE: 10-24-18
am

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<i>David Werth</i>	EA - Site Health and Safety Office

2. OPERATING EQUIPMENT		
Team #1	Team #2	Spare
YSI Professional Plus 15K101398 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005 <input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006 <input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
<i>0630</i>	<i>EA + Cascade on site</i>
<i>0645</i>	<i>conduct H&S briefing.</i>
<i>0710</i>	<i>Start building 20' drive pipe sections</i>
<i>0915</i>	<i>Mob to S9 to finish setting up and start drilling.</i>
<i>1145</i>	<i>ACT here to drop off contingency roll-OFF.</i>
<i>1300</i>	<i>Reached 160'; start to prepare for telescope.</i>
<i>1430</i>	<i>mob to laydown yards to get 9 5/8" drive casing.</i>
<i>1540</i>	<i>mob back to S9 to continue drilling.</i>
<i>1730</i>	<i>9 5/8" tripped in; ready to drill in the AM. off site.</i>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 10/22/18

WEATHER: 68 mostly cloudy

WELL ID: KAFB-10655

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Bocher	EA - Site Manager/Supervisor
Dense Witt	EA - Site Health and Safety Office
Large Ambrose / Carlos Montoya	EA/Geologist
Roger Rodriguez	Cascade Drillers
James Duc / Brian Mathon	Cascade Drillers Helpers

2. OPERATING EQUIPMENT

Sonic Drilling Rig, Forklift, PID MiniRac 3000, Thermo PDR-BP Dust meter.

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H+S meeting
 Drilled to 466' bgs
1.3 cy of soil IDW in Roll off #
 Kate Lynnes visited site

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 CA and Cascade onsite
 0715 H+S meeting conducted
 0748 Drilling resumed
 1154 Bryan Vadose onsite, but did not enter Explosion zone // 1159 Bryan Vadose offsite

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

ROLE: _____

DATE: 10-22-18

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>David Werth</u>	EA - Site Health and Safety Office
<u>Mark Green</u>	<u>Cascade</u>
<u>Forrest</u>	<u>Cascade</u>

2. OPERATING EQUIPMENT					
Team #1		Team #2		Spare	
YSI Professional Plus 15K101398 Wh0003	<input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001	<input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002	<input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005	<input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004	<input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006	<input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008	<input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009	<input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007	<input type="checkbox"/>
Solinst Water Level Meter 253054	<input type="checkbox"/>	Solinst Water Level Meter 253053	<input type="checkbox"/>	Solinst Water Level Meter 253056	<input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
0630	EA & Cascade on site; conduct safety briefing.
0715	mob to laydown yard to load additional 9 5/8" drive pipe & drill rod.
0745	mob back to S9 to continue drilling.
1000	9 5/8" drive pipe getting stuck; trip out and try again.
Note	Brian w/ USAF San Antonio stopped by to say hi; stayed safe distance away from exclusion zone.
1300	ACT was removed S9-1 (15 yards) and the contingency roll-off, and brought S9-3.
1730	Reached -455'; will pound last few feet in AM; dumped 14.5 yards in S9-3 and 0.5 yards in S9-2.

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
1815	off site.

**Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction**

ROLE: SSHO/ Site Manager

DATE: 10/23/18

WEATHER: KAFB-10659

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bob Marley	EA - Site Manager/Supervisor
Bob Marley	EA - Site Health and Safety Office
Mark Green	Cascade
Forrest Shotton	"

2. OPERATING EQUIPMENT		
Team #1	Team #2	Spare
YSI Professional Plus 15K101398 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005 <input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006 <input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
①	Advance drive casing from 457 to 490 ft bgs.
②	Trip drill pipe out of hole
③	Secure site

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0700	Daily H&S meeting, raining w/ lightning delay until weather improves
0800	Cascade to lay down yard to retrieve 5' joint of drive casing for KAFB-10659

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: Geologist
 WEATHER: SIP Rainy

DATE: 10/25/18
 WELL ID: KAFB-10655

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bernie Dochow	EA - Site Manager/Supervisor
Dennis Witt	EA - Site Health and Safety Office
Love Amboss / Carlos Montoya	
Roger Rodriguez	
James Dier / Duane Mathen	

2. OPERATING EQUIPMENT

Service Drilling Rig, Forklift, PID Min-Rae 3000, Thermo PDR-BP Dust
 meter

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Drilled to 506' bgs
2.3 of soil IDW in Roll off #55-3

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Lighting, shelter in vehicles for 50 mins
0730	Resumed work
0740	H & S Meeting
0815	Drilling Resumed

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

ROLE: SS170

DATE: 10/24/18

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bob Masley	EA - Site Manager/Supervisor ARCH R. J
--	EA - Site Health and Safety Office
Mark Green	Cascade
Forrest Chaitin	--
Duane	--

2. OPERATING EQUIPMENT					
Team #1		Team #2		Spare	
YSI Professional Plus 15K101398 Wh0003	<input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001	<input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002	<input type="checkbox"/>
MiniRAE 3000 592-915773 Wh0005	<input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004	<input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006	<input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008	<input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009	<input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007	<input type="checkbox"/>
Solinst Water Level Meter 253054	<input type="checkbox"/>	Solinst Water Level Meter 253053	<input type="checkbox"/>	Solinst Water Level Meter 253056	<input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
①	Pull back 1 1/4" drive casing from 160 to 130' bgs
②	Secure temp well, mob rig equipment - from KAFB-106 S9 to laydown yard
③	ARCH rig equipment decon

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0700	Conduct daily H&S meeting, steady rain/wet
0730	Setup to pull back 1 1/4" drive casing w/ jacks at KAFB 106 S9

Reviewed by: _____ Initials: _____ Reviewed date: _____

ROLE: Geologist

DATE: 10/24/18

WEATHER: 50°F Rainy

WELL ID: KAER-10655

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Boehish	EA - Site Manager/Supervisor
Denee Wilt	EA - Site Health and Safety Office
Eune Andres / Carlos Montoya	EA / Geologist
Thoger Rodriguez	Cascade
James Doe / Dwayne Mathan	Cascade Drillers

2. OPERATING EQUIPMENT

Sonaz Drilling Rig, Fork Lift, P.D. Mini Rze 3000, Thermo PDR-BP
Dust meter

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H + S meeting
Added 1 cy to rolloff # 59-3
Added 0.5 cy to rolloff # 59-1
cm

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 EA and Cascade onsite
0710 H + S meeting
0745 Bernie offsite
0831 Bernie onsite // Drillers began tripping out casing

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report -- Non-Construction

ROLE: SSH0

DATE: 25 Oct. 2018

WEATHER: 50-60's sunny

WELL ID: S-9

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
-	EA - Site Manager/Supervisor
Denise Wilt	EA - Site Health and Safety Office
Roger Rodriguez	Cascade driller (sonic rig)
James C. Due	Cascade helper
Duane Matthews	Cascade helper
Kevin McKeague	EA

2. OPERATING EQUIPMENT

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0710	H&S Meeting / tailgate
	Core barrel equipment rinse blanks CRB-SS-251018-01 @ 745 and RB-SS-251018-02 @ 800

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	EA on onsite
0700	Cascade onsite
0710	H&S tailgate meeting
0715	Cascade - down sonic rig, placed sample

**Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction**

DATE: 25 Oct. 2018

4. WORK PERFORMED (Continued)	
	barrels on forklift for EA to perform equipment rinse blk. EA collected 2 rinse blanks (one from each sample barrel/core that was used at S-5)
0900	Cascade mobilizing to S-9 to set up rig
1030	Rig - started to advance casing (Cascade)
1100	Cascade - 250' casing advanced, rebedding box truck w/ more casing
1130	Resumed lowering casing
↓	
1200	casing to depth 400 480 (some core in from other rig)
1200	Cascade break for lunch
1300	Cascade advancing rod
1355	480' Rod in casing, breaking down rig.
1430	Break down complete, Cascade off site. EA secured site. Note Cascade pumped water from rig tank to 250 Poly in prep for rig maintenance off site.
1440	EA Packing up cooler
1500	EA offsite

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Dense Wilt
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

106

ROLE: SS-10

DATE: 10/29/2008

WEATHER: Clear 10655/2.1a Park Laydown

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bennie Boeluck	EA - Site Manager/Supervisor
Earl Morse	EA - Site Health and Safety Office
Mark Green	} Cascade
Forrest Chatter	
Duane Maxwell	

2. OPERATING EQUIPMENT					
Team #1		Team #2		Spare	
YSI Professional Plus 15K101398 WhCC03	<input type="checkbox"/>	YSI Professional Plus 15K101396 WhCC01	<input type="checkbox"/>	YSI Professional Plus 15L100541 WhCC02	<input type="checkbox"/>
MiniRAE 3000 592-915778 WhCC05	<input type="checkbox"/>	MiniRAE 3000 592-915790 WhCC04	<input type="checkbox"/>	MiniRAE 3000 592-915579 WhCC06	<input type="checkbox"/>
Hach 2100Q 15100C045034 WhCC08	<input type="checkbox"/>	Hach 2100Q 15100C044633 WhCC09	<input type="checkbox"/>	Hach 2100Q 15100C045025 WhCC07	<input type="checkbox"/>
Solinst Water Level Meter 253054	<input type="checkbox"/>	Solinst Water Level Meter 253053	<input type="checkbox"/>	Solinst Water Level Meter 253056	<input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
0630	Safety brief
	- Setup ARCH rig at KAFB-106 SS
	- Advance drive casing to 506 ft by 5

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0630	safety brief, Plan of day
0700	Calibration of PID and dust meter
	Discussion w/ Mark Green about drilling today.
	Dependant on how far they get with set up and bin availability.

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

26

10655/21a Park Laydown

DATE: 10/29/2010

4. WORK PERFORMED (Continued)

0900	Cascade moving pipetruck trailer to site
0925	Cascade arrives at 55 site. 55/10 is re-establishing the parameter boundaries
0950	Cascade leaves 55 site to get ARCH rig
1015	Cascades arrives w/ rig & hopper trailer
1100	Repacking belts on cuttings discharge line
1140	Taking break / 1230pm Break over
1240	start running drill string
1245	B. Marley arrives
1315	Cascade drilling from 403"
1350	Cascade @ 450' with drive casing
1450	Drive casing @ 506", circulate to clean hole & free bit
1530	Trip out drill pipe to clear sediment plug
1600	out of hole, crew takes break
1610	Trip drill bit & pipe back in hole
1630	Done tripping bit into hole, ACT (Martin) delivers roll off for drill cuttings
1710	Leave 55 site for on base laydown yard. Cascade plans to load well materials
1750	offsite

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Bob Marley
Name

Bob Marley
Signature

EA Engineering, Science and Technology Inc., PBC

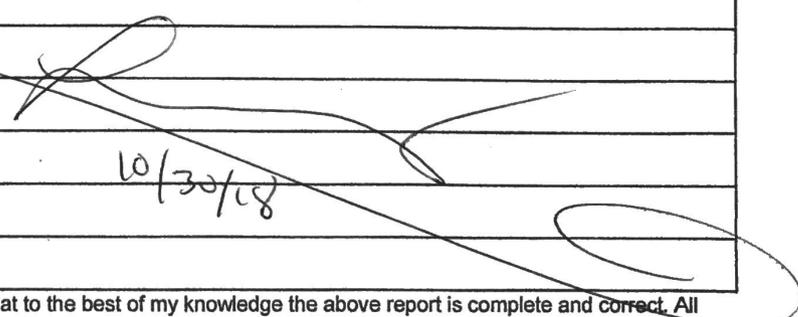
Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 10/30/18

4. WORK PERFORMED (Continued)	
0840	Cascade onsite
0900	Base wide Active Shooter Drill ^{com} was conducted, Cascade at OR staff shelter. 3 Field Tractor units all clear
0945	OR and Cascade back to work.
1015	Drilling resumed
1126	Drilling stopped to refuel rig
1139	Resumed drilling
1345	Cascade back for lunch
1430	Cascade back from lunch // 1500
1645	Reached TD @ 510' bgs
1650	Derne B off site
1700	tyler curley off site - Lane Address takes over as SS10
1700	Justin Grey of AEG on site & replaces Roll-off tarp w/ new tarp that won't let rain water in.
1730	Carlos Montoya off site // 1735 tripped out of hole S9 - secure site.
1750	Cascade & EA off site
	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 10-30-18

WEATHER: Partly Cloudy; 60s°F

WELL ID: KAFB-106 S5

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Todd Nickerson	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Mark Green / Forrest Chatten	Cascade - Lead Driller
Duane Matthews	Cascade - Driller's Helper

2. OPERATING EQUIPMENT *see individual forms*

<i>JMS</i>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	H&S briefing
-	Visitors on site: 2M
-	IPW: S5-4 on site (approx. 9 yards)
<i>Todd A. Nickerson</i>	

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Met @ BFF trailer - set up T. Nickerson with SSHE equipment
0720	H&S briefing: discussed spotter use, ppe, overhead hazards, pinch points, forklift movement - flashers on
0830	Cascade and EA on site - drillers begin off loading well construction equipment

**Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report -- Non-Construction**

DATE: 10-30-18

4. WORK PERFORMED (Continued)	
0920	drillers begin tripping in 8 1/2" bit to clean out borehole - 0935 drillers begin cleaning out borehole to TD (506 ft bgs) - generated ~4.5 yards of cuttings + water
1020	drillers clean hole to 506 ft bgs - 1023 drillers add ~400 gal. water down hole
1026	drillers begin tripping out stem + bit - 1050 drill bit tripped out
1053	drillers on water break - 1103 drillers off water break
1130	drillers tag borehole = 500.7 ft bgs - approx. 5.3 ft of slough entered borehole - drillers prep to build wells - 1150 Josh M. stops Cascade after noticing well screen is 0.020" slot - Cascade driller notified B. Nydoski + Josh M. notified B. Bockisch
1200	Driller informed Josh M. that the vendor had sent the wrong well material
1205	drillers on lunch on ^{drillers} Mark G. off site to laydown yard to see if 0.010" slot screen is present to build wells
1259	F. Chaffin + D. Matthews on site - 1307 Mark G. onsite - 2M onsite
1310	drillers off load well materials from 2M - 1323 2M off site - Mark G. and Duane M. off site to laydown yard - 1348 Mark G. + Duane M. on site
1418	Mark G. informed Josh M. that Brian N. found a vendor that can cut/ship order to site - details being worked out - drillers perform preventative maintenance on drill rig
1500	J. Messenger offsite for the day.
1510	Mark G. offsite to purchase parts. F. Chaffin + D. Matthews continue rig maintenance.
1600	D. Matthews offsite to help with Sonic rig.
1620	Mark G. back on site.
1655	Mark G. offsite. 1705-Todd N. offsite. Forest C. is waiting
1705	for security. End of day. Security arrives. <i>Todd A. Nickerson</i>

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Todd Nickerson
Name

Todd A. Nickerson
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 10/31/18

WEATHER: 48°F Rainy

WELL ID: KAFB-10639

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bernie Bochish	EA - Site Manager/Supervisor
Todd Nickerson	EA - Site Health and Safety Office
Love Anders / Carlos Montoya	EA / Geologist
Roger Rodriguez	Cascade Drills
James Ave / Love Situmore	Cascade Drills's Helper

2. OPERATING EQUIPMENT
Sonic Drilling Rig, Fork Lift, P/D Mini Rac 3000, Thermo PDR-8P Dust Mtr

3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	H+S Meeting
-	Log a sample core from KAFB-10639
-	Move ^{sonic} rig from S9 to S4, set up on S4
-	Decon ^{sonic} casing & core barrels
-	Roll off "S9-2" moved to Zia Park <90-Day yard pending analysis w/ ~3 yds of soil/water - No IDW on sites (S4 & S9)
-	Tripped in to S4 w/ casing to ~340 ft bgs
-	Roll off for S4 delivered to site & secured

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0700	Eat and Cascade arrive
0720	H+S meeting
0732	Drillers began pulling out casing
0800	Kevin McKeage onsite

DQCR Page 1 of 2 10/3

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

4. WORK PERFORMED (Continued)

DATE: 10/31/18

1030	Todd Nickerson offsite headed to Arch Rig location to be SSHO, Lane address taking over SSHO @ Sonic Rig location
1045	Drillers offsite to move equipment to lay down yard
1057	Drillers onsite
1130	Drillers moved Rig and Box to KAERS-10655 location to start setting up.
1145	EA Box and Ref. Truck moved to KAERS-10655 location
1210	EA finish moving work Trucks to S4 location - set up rig on S4
1220	Carlos and Kevin offsite - Lane A takes over DQCR Carlos & Kevin take coolers to Fed Ex to ship samples.
1230	Drillers break for Lunch 1330 Drillers back w/ forklift from ARCH CREW - move equipment to S4 & decon ^{Zia Park} yard
1410	Empty Hopper w/ S9 cuttings into S9-2 roll off - secure roll off - 1420 ACTION S14 to move roll off to Zia park < 90 - Day yard
1440	Cascade moves water tote w/ forklift to Zia park decon yard to decon drill casing.
1450	Set up pressure washer on Visigrene secondary containment
1515	Begin decon of casing ^{Sonic} - on decon pad w/ proper PPE
1559	Finish decon - Load casing in to Sonic Support Truck - deconned 120 ft casing // 1630 Decon 2 core barrels
1640	Finish Loading Sonic Box/support truck, put ^{away} pressure washer
1652	Mobilize to KAERS-10654 // 1659 set up support truck & rig
1712	Begin tripping in casing ^{Sonic} // 1737 - 240 ft casing in hole - Load casing from trailer into support truck
1804	Resume tripping in casing - tripped into ~340 ft bop (338 ft)

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name Lane Address

Signature 

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

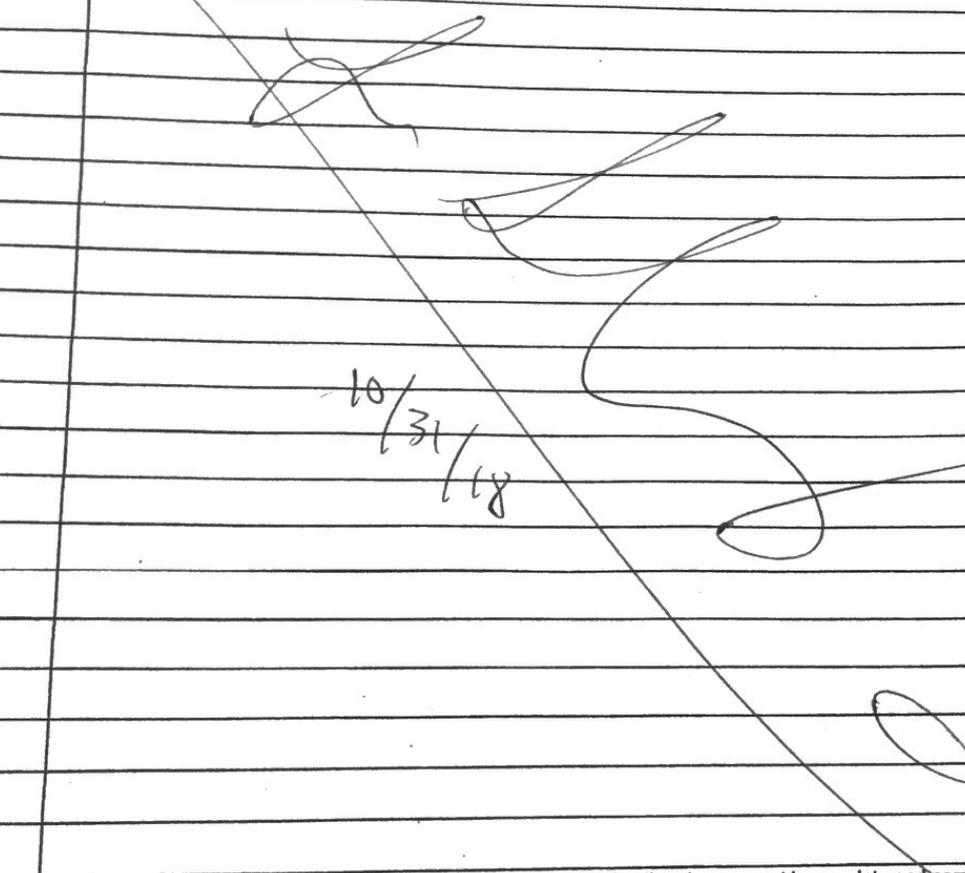
2013

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

4. WORK PERFORMED (Continued)		DATE: 10/31/18
1820	ACT delivered off Roll off for SY to site earlier today	
	- Sewing str	
1822	Cascade & EA off site	
		
10/31/18		

6. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lore Andress
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

3 of 3
 DQCR Page 2 of 2

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 10-31-18

WEATHER: Cloudy and Rainy; 50s

WELL ID: KAFB-106S5

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Todd Nicholson	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Mark Green / Forrest Chaffix	Cascade - Lead Drillers
Dwane Matthews	Cascade - Driller's Helper
Brian Nydoski	Cascade

2. OPERATING EQUIPMENT *see individual forms*

<i>JM</i>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	H&S briefing
-	Installed deep well filter pack to 444 # lbs
-	Visitors on site: AAA, ACT
-	IDW: S5-4 off site to EA IDW yard (9 yards)

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

1040	Met on site - H&S briefing - fork lift operations - spotter; overhead haz; pinch points; dust - PPE; 50 lb individual lift - >50 lb requires 2 man/fork lift
1100	Brian N. off site to sonic rig - 1108 Josh M. off site to EA field trailer
1130	Josh M. on site - 1150 drillers on lunch - 1305 drillers off lunch with 0.010" slot screen

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: ^{cm} ~~SSTLO~~ Geologist

DATE: 11/1/18

WEATHER: 59° Mostly Cloudy

WELL ID: KATB-10654

1. ONSITE PERSONNEL (Including subcontractors and government employees)

Name	Organization
Bernie Boelzlk	EA - Site Manager/Supervisor
Lane Address	EA - Site Health and Safety Officer / Geologist
Carlos Montoya	EA / Geologist
Roger Rodriguez	Cascade Driller
Tyler Curley	SSTLO

2. OPERATING EQUIPMENT

Sonic Drilling Rig, Fork Lift, PID MiniRae 3000, Thermo PDR-BP Dust Meter

3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

	H & S Meeting
	Drilled to 386 ft
	210 cy of soil IDW in rolloff # 54-2

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Meet on site -
0745	H & S meeting conducted
0940	Driller pipe lift has malfunction and need to repair it before
	Drilling can resume 10945 Bernie offsite

**Kirtland AFB Bulk Fuels Facility Vadose Zone Coring – 62735DM02
Daily Quality Control Report – Non-Construction**

DATE: 11/1/18

4. WORK PERFORMED (Continued)	
1024	Resumed Drilling
1025	AAA Dropped off pottery Cascade moved pottery From S9 to S4
1053	FIRST CORE RUN UP – 340' – 346'
1300	Cascade Broke for Lunch
1345	Cascade Resume Drilling
1400	Tyler Curley on-site as SSTIO - Lane A as Geologist Now
151730	Carlos M off site // Drilled to 386 ft - core not logged
1700	only temps taken as core from last 10 ft run stored in boxes in Refrigerated truck
1800	S14 Clean up - IDW staged & secured in Roll off S4-2 - casing down to 386 ft cleared out hole & will remove clean-out tomorrow morning
1815	Cascade off site
1825	tyler curley
1835	Lane Address off site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11-1-18

WEATHER: Partly Cloudy; Dry; 50°F; breezy
clear in afternoon

WELL ID: KAFB-10655

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Todd Nicholson	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Mark Green/Forrest Chatten	Cascade - Drillers
Duane Matthews	Cascade - Drillers' Helpers

2. OPERATING EQUIPMENT *see individual forms*

<i>JM</i>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	Met on site: H&S briefing
-	Deep filter pack installed to 444.3 ft bgs
-	Deep seal installed to 438.8 ft bgs
-	Shallow filter pack installed to 409.5 ft bgs
-	Installed 30 ft seal to 375.7 ft bgs
-	Grout installed to ~215 ft bgs
-	IDW on site: NONE
-	Visitors on site: NONE

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Met on site - H&S briefing: discussed dust - PPE, overhead hazards, proper hand placement, pinch points, overhead hazards, forklift hazards - spotter, pressure hoses - proper routing of hoses
0730	driller informed EA that swabbing caused well to sink ~12 ft - driller

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 11-1-18

4. WORK PERFORMED (Continued)

	connected a 20' blank to well and raised well to appropriate elevation
0745	FP = 445.5 ft bgs - filter pack has settled 1.5 feet - driller informs EA of the plan: to run contingency well and then complete deep filter pack + seal
0750	driller notices a small fluid stain under forklift - forklift was inspected and no leak was discovered - stain was absorbed with pudding - drillers prep to build shallow well - 0800 shallow well construction begins - driller informed that deep well to be tagged after shallow well construction
0805	Bernie B. on site - 0815 Bernie B. off site
0846	Shallow well total PVC length = 442.7 ft total = 3.7 ft above ground to correct downhole elevation
0850	drillers on break - 0907 drillers off break - driller decides to add 4.95' PVC to shallow well = 442.7 + 4.95 = 447.65 - 439 = 8.65 ft ags - driller decides not to add PVC
0922	deep well total PVC length = 482.05 ft - silt on bottom - ags sets = D = 4.6' S = 3.7' to put wells at proper depths - 0930 FP = 445.8 ft bgs - 0934 FP = 444.3 ft bgs
1000	- drillers install seal to 438.8 ft bgs - 1017 drillers on break
1027	drillers off break ^{5m} to 50 ¹¹²⁰ FP = 422 ft bgs - 1128 FP = 409.5 ft bgs - shallow filter pack installed - drillers began installing 30' seal - 1148 drillers on break
1230	drillers off lunch break - 1252 Seal = 397.2 ft bgs - drillers hydrate first 10' liff with ~ 25 gallons water - 1320 Seal = 376.7 ft bgs - driller informed us that some native soil entered borehole as a 20 ft section of casing was removed therefore the tag @ 1320 was high; driller stated that they would hydrate second liff acid then add a little more chips to ensure a good seal - added 40 gallons of water - 1330 Seal installed to 375.7 ft bgs - 1338 drillers hydrated third liff with ~ 100 gallons of water - driller stated that third liff (5 bags) pushed chips + soil out into void; therefore the third liff (5 bags) came up only one foot to 375.7 ft bgs - good seal installed - drillers prep to grout to 200 ft bgs - 1355 driller hydrates 5' seal by adding ~ 45 gallons of water down contingency well - drillers take water break
1430	drillers and Todd N. off site to laydown yard

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Joshua Messenger
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2
JM

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11/2/18

WEATHER: _____

WELL ID: KAFB-10654

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
Tyler Curley	EA - Site Health and Safety Office
Lane Anders/Carlos Munoz	EA Geologists
Roger Riquelme	Cascade - Lead Driller
Jane Chris' Doe	Cascade - Driller helper
Lane Sitzmore	Cascade - Driller helper
2. OPERATING EQUIPMENT	
PID & Dust meter - see individual H&S forms	
Sonic drill rig & support box truck, forklift	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
- Health & Safety Brief	
Drilled to <u>420</u> lbs	
<u>2.5</u> cy of new soil in Roll-off #54-2	
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0700	Meet on site - H&S Brief
	Get equipment from EA BFA trailer & warm up rig - set up drilling equipment
	- Carlos M to get Dry Ice

Reviewed by: _____ Initials: _____ Reviewed date: _____

ROLE: Geologist

DATE: 11-2-18

WEATHER: Sunny; Dry; 60s; breezy

WELL ID: KAFB-10655

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Todd Nickerson	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Mark Green / Forrest Chaffin	Cascade - Lead Drillers
Duane Matthews	Cascade - Drillers' Helper

2. OPERATING EQUIPMENT See individual forms

<i>JM</i>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- Met on site - H&S briefing
- grout installed to 28.5 ft bgs
- Bentonite chips installed to 28 ft bgs
- Cement installed to \approx 5 ft bgs
- IDW: Cement washout in two steel drums (50 gallons and 30 gallons)
- Visitors on site: ^{JM} NONE AAA

Todd A. Nickerson

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Met on site - H&S briefing: discussed overhead haz., pinch points, rotating parts, dust - PPE, heavy lifting - proper lifting, mobile equipment - spotter use, forklift operations, decon sprayer noise - PPE
0710	I noticed a wet spot under forklift - informed driver to clean wet spot + inspect forklift

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 11-2-18

4. WORK PERFORMED (Continued)

0730	drillers stated that the hose clamp on main radiator hose is loose and the source of the leak - drillers lay visqueen down and tighten clamps and perform equipment service inspection on all equipment
0800	drillers continue pulling 9 3/8" casing + grouting
0825	All 9 3/8" casing pulled out - drillers exchange casing jack blocks to prepare to remove 11 3/4" casing
0907	drillers + Todd N. offsite to Laydown Yard to unload 9 3/8" pipe
1102	drillers + Todd N. onsite - 1105 drillers on water break - 1108 off break
1118	drillers mix batch #4 of grout (200 gal. water + 7.5 bags)
1120	batch #4 downhole - 1135 drillers removed 20' casing
1138	drillers mix batch #5 (200 gal + 8 bags) - 1141 batch #5 downhole
1145	drillers mix batch #6 (200 gal + 8 bags) - 1148 batch #6 downhole
1152	drillers began pulling 11 3/4" casing - 1213 East pl. onsite
1225	drillers on lunch - 1227 East pl. offsite - 1305 off lunch break
1310	drillers mix batch #7 (200 gal + 8 bags) - 1315 batch #7 downhole
1317	drillers mix batch #8 (200 gal + 8 bags) - 1321 batch #8 downhole
1325	drillers began pulling 11 3/4" casing - 1345 all 11 3/4" casing tripped out
1350	grout installed to 65 ft bgs - 1353 drillers on break
1400	drillers mix batch #9 (200 gal + 8 bags) - 1404 batch #9 downhole
1410	grout installed to 30 ft bgs - drillers will let grout settle and re-tag later
1415	drillers began site cleanup - 1510 driller baits deep well to ensure no grout entered well during grouting (well was plugged during grouting but just a precaution)
1514	bailer out of deep well - water inspected: no signs of grout contamination - water slightly murky - 1520 driller dropped derrick + continued site clean up
1535	drillers on break - 1550 grout tagged at 285ft bgs. - driller adds 1 bag of bentonite chips to confirm a good tag - top of chips @ 28ft - good tag

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Todd Nickerson
Name

Todd A. Nickerson
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2
JM

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11/3/18

WEATHER: 60° Mostly Sunny

WELL ID: 1KAFB-10634

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bennie Beshish	EA - Site Manager/Supervisor
Lane Andrews	EA - Site Health and Safety Office
Carlos Montoya	EA / Geologist
Roger Rodriguez	Cascade Driller
James Dye / Lance Sizemore	Cascade Driller's Helper

2. OPERATING EQUIPMENT
Sonic Drilling Rig, Fork Lift, PID Min, Rae 300, Thermo PDR - BP Dist Meter

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	H+S meeting
	3.25 cy of IDG soil in roll-off # S4-2
	Drilled to 446' bgs

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0650	Lane A on site, Rig onsite from repair shop // 0653 Carlos onsite
0710	pm H+S meeting and discussed Goals of for the day
pm	(Drill to 55ft) and sampling interval 464-469.
0725	Drillers started to put Rig in place.

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

ROLE: SSHO

DATE: 11-3-18

WEATHER: Clear, Cool, Windy

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Todd Nickerson</u>	EA - Site Health and Safety Office
<u>Mark Green, Forest Chaffin</u>	<u>Cascade - Drillers</u>
<u>Duane Mathews</u>	<u>Cascade - Driller helper</u>

2. OPERATING EQUIPMENT

Team #1	Team #2	Spare
YSI Professional Plus 15K101398 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005 <input checked="" type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006 <input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

<u>0700</u>	<u>Safety briefing</u>
<u>0800</u>	<u>Mobilize equipment to lay down yard</u>
<u>1200</u>	<u>Sawcut 4'x4' Pad</u>
<u>1500</u>	<u>Decon drill rig and well casing, drill stem</u>
<u>1730</u>	<u>Mobilize drill rig to KAFB-10653.</u>
	<u>No visitors to site</u>

Todd A. Nickerson

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0720</u>	<u>Cascade loading equipment, preparing to mobilize to new well location (KAFB-10653)</u>
<u>0802</u>	<u>Mobilize first load of equipment to the lay down yard</u>
	<u>Drop trailer, unload casing and other equipment</u>

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11/4/18

WEATHER: 59° Partly cloudy

WELL ID: 16 AFB-12634

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Bachysh	EA - Site Manager/Supervisor
Lance Andrews / Till Niche son	EA - Site Health and Safety Office
Carlos Mantuyt	EA / Geologist
Roger Rodriguez	Cascade Driller
James Lee / Lance Sizemore	Cascade Driller's Helper
Kevin Lee Andrews	Geologist

2. OPERATING EQUIPMENT

Sonaz Drilling Rig, Forklift, PID Mini Rax 3000, ~~Thomson~~ Thermo PDR-30
Dust Meter

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H & S meeting
 H₂O cy of IDW soil in Roll off 54-1
 Drilled to 493' bgs

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0655 H & S meeting
 0710 Drillers start warm up
 0717 Resume Drilling
 0758 First core opt surface (446-453)

Reviewed by: _____ Initials: _____ Reviewed date: _____

**Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction**

ROLE: SSHO

DATE: 11-4-18

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
Todd Nickerson	EA - Site Health and Safety Office
Mark Green, Forest Chattin	Cascade-drillers
Duane Mathews	Cascade-driller helper
Josh Messenger	EA-Geologist

2. OPERATING EQUIPMENT		
Team #1	Team #2	Spare
YSI Professional Plus 15K101398 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005 <input checked="" type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006 <input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0650 Safety Meeting

0700 load equipment, Transport from laydown yard to KAFB-10653

1430 Hopper and Soil cutting discharge line clogged. Ceased drilling to clear the line and hopper. Resumed drilling @ 16:40.

NO visitors to site

17 yds³ Soil cuttings in roll off

Todd A. Mathews

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 load equipment, mobilize Compressor & other equipment to well.

0916 Mobilize to KAFB-10653

0940 Set up exclusion zone around S3. Set rig, support trailer, compressor, etc. Prepare to set casing.

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11/4/18

WEATHER: 64°F, clear, sunny, wind 11 mph N
Barometer 29.74 ↓

WELL ID: KAFB-10654

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bernie Boshish	EA - Site Manager/Supervisor
Todd Nickerson	EA - Site Health and Safety Office
Lance Andrews/Carlos Montoya	EA/Geologist
Roger Rodriguez	Cascade Driller
James Doe/Lance Sizemore	Cascade Drillers Helpers
2. OPERATING EQUIPMENT	
Sonic ^{low} Pressure Drilling Rig, Forklift, PFD Mini Racer 3000, Thermo PDR-BP Dust Meter	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
	H&S meeting
3:75 ^{PM}	0.75 of IDW soil in Roll off # 54-1 ⁵⁴⁻³ 54-2
	Drilled to 504" bgs in 54
	0.75 of IDW soil in Roll off # 54-2 ⁵⁴⁻³ 54-3
	- Secure KAFB-10654 w/ tack weld
	- Decan drill rig & drill casing of core barrels
	- Drop Drill rig & forklift & tractor w/ equipment at KAFB-10652 to set up to drill tomorrow
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
620	H&S meeting
630	Rig Warm up
650	Resumed Drilling
0705	Bernie Boshish onsite & talking over and over SST/O

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 11/5/18

4. WORK PERFORMED (Continued)	
0905	Recheck TD @ 504' bgs
1310	Moving Ref Truck to Pump IDW
1405	Finished Dumping core, headed back to KAFB-10654
1315	Drillers Break for Lunch // 1345 Drills back from Lunch - Lane secures box truck for move
1415	Carlos & Bernie go to refuel refrigerated truck off Base
1420	Drillers de-mobbing rig for decon
1426	Call in "Hot Work" to KAFB Fire Station - was told to call back when we are done
1446	tack weld security strip to well cap on KAFB-10654 - Lance S from Cascade on Firewatch
	- Carlos & Bernie back w/ refrigerated truck
	- Lane w/ drillers on SSMA to oversee decon of rig & drill casing
1455	Arrive Zia Park lay down yard & begin decon - Carlos helping Kevin ship samples
1529	Lance S at Zia Park lay down yard w/ trailer - Firewatch over - no fires were started
1531	called KAFB Fire Station that work & firewatch were over
1614	Decon Core barrels - deconnected 150 ft of drill casing
1629	Decon Rig (Sonic Rig) -
1705	having trouble drawing out pressure washer after Decon (to prevent freezing)
1708	Fixed issue - mobilize rig & forklift & trailer w/ Casagor S2 -
1716	Arrive at KAFB-10652 & drop rig, trailers forklift

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
Name

Signature

1725 - Cascade off site - Lane to scan paperwork for daily

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____ Initials: _____

Reviewed date: _____
1745 Lane
1800 off site
Costs off

**Kirtland AFB Bulk Fuels Facility Vadose Zone Coring – 62735DM02
Daily Quality Control Report – Non-Construction**

DATE: 11-5-18

4. WORK PERFORMED (Continued)	
0718	Bernie B. on site – 0745 ACT on site – 0748 ACT off site to dump empty rolloff and then come back to pick up S3-1
1750	Bernie B. off site – 0800 drillers tripped out bit + stem – began site clean up
0823	drillers on water break – 0830 drillers off water break
0838	drillers off site to laydown yard – 0845 drillers on site
0846	ACT on site to remove S3-1
0848	drillers off site w/ rig + pipe truck to laydown yard
0849	Bernie B. on site
0945	Josh M. off site
1015	Tack weld a lid on KAFB-10653.
1020	Tag Total Depth of KAFB-10659 – 497' bgs.
1030	Load well material for S9 on trailer @ laydown yard
1200	mobilize drill rig + equipment to S9. Set up over borehole
1237	mobilize forklift and water truck to S5 to pour well pad.
1255	break for lunch. Back on site @ 13:20
1325	concrete truck arrives at site (S5). Pour Pad and take down barricades.
1450	mobilize back to S9.
1500	Set up on S9. Trip in auger to clean bottom of borehole
1605	Auger set @ 490' bgs. Need roll off to start cleaning borehole.
1650	Cascade off site
1750	ACT drops rolloff @ S9
1815	ACT drops rolloff @ S2
1825	offsite - End of day

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Todd Nickerson
Name

Todd A. Nickerson
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11-6-18

WEATHER: ≈ 66°F; Clear sky; breezy

WELL ID: KAFB-10659

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
Todd Nickerson	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Mark Green/Forrest Chaffin	Cascade - Lead Drillers
Dwane Matthews	Cascade - Drillers' Helpers
2. OPERATING EQUIPMENT <i>see individual forms</i>	
<i>JM</i>	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	met on site - H&S Briefing
-	Installed 9 5/8" casing to 496 ft bgs
-	Installed deep filter pack to 444.9 ft bgs
-	Installed deep seal (5ft) to 440.1 ft bgs
-	Shallow filter pack installed to ≈ 428 ft bgs
-	Visitors: NONE
-	IDW: 59-2 onsite with 6 yards waste
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0600	Met on site - H&S Briefing: discussed dust/noise - PPE, overhead haz., pinch points, rotating parts - proper hand placement
0615	drillers off site to laydown yard to retrieve 5' section of 9 5/8" casing and well building materials - 0625 driller back on site

Reviewed by: _____

Initials: _____

Reviewed date: _____

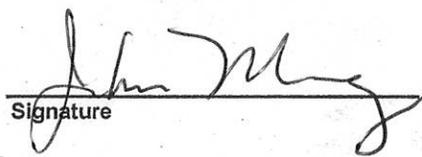
**Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction**

DATE: 11-6-18

4. WORK PERFORMED (Continued)	
0650	drillers began to clean out borehole - 0715 drillers install 9 7/8" casing to 496 ft bgs - 0726 driller adds ~ 400 gallons water downhole to clean out
0740	Josh M. offsite to install security bolt @ S5 - 0804 Josh M. on site
0815	8 1/2" milltooth tricone tripped out - 0820 final washout waste emptied into rolloff - 4 yards soil + water generated during washout - 0825 drillers on break
0830	drillers off break - began positioning well materials for construction
0852	driller tags borehole = 496 ft bgs - 0900 well construction began
0936	Deep well total PVC length = 497.5 ft - 489 ft (well depth bgs) = 8.5 ft stickup ags
0945	drillers prep to set deep filter pack - 1009 drillers on break - 1020 drillers off break - drillers began setting deep filter pack (FP) - 1030 Mark G. off site - 1043 Mark G. on site
1050	FP = 487.5 ft bgs - 1120 FP = 476.6 ft bgs - 1124 drillers on lunch - 1200 drillers off lunch
1203	FP = 476.2 ft bgs - 1215 - FP = 467.7 ft bgs - 1228 FP = 465.2 ft bgs
1236	driller stated that there is a void ~ 460 ft bgs (where the sonic rig had trouble) and required more sand than usual - 1256 drillers on break - 1308 drillers off break
1314	FP = 451.6 ft bgs - 1325 drillers prep to swab deep well - 1340 well swabbed
1345	FP = 445.6 ft bgs - driller stated that they will build shallow well and then add sand snatches to closer to 445' and then install 5' seal - 1405 drillers began building shallow well - 1445 shallow well PVC total length = 443 ft - 440 ft = 3 ft stickup ags - driller adds 5' casing = 8 ft ags shallow and 8.5 ft ags deep to put at correct bgs elevations. - 1456 drillers on break - 1505 drillers off break
1534	Deep filter pack installed to 444.9 ft bgs - 1555 deep seal installed to 440.1 ft bgs
1606	FP = 438.1 ft bgs - 1619 FP = 429.2 ft bgs
1630	Site cleanup - 1635 drillers off site - 1650 Josh M. off site - Todd N. off site to S2
	JPM

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name Joshua Messenger

Signature 

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11/6/18

WEATHER: 65° Sunny

WELL ID: KAFB-10652

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Bachish	EA - Site Manager/Supervisor
Todd Nilsson	EA - Site Health and Safety Office
Carlos Montoya / Line Ambress	Geologist / EA
^{on} Foster Roger Rodriguez	Cascade Driller
James Duff Lance Site man	Cascade Drillers helper

2. OPERATING EQUIPMENT

^{on} Sonic Rig, Sonic Drilling Rig, Fork Lift, PFD Mini Rac 3000, Thermo PDR-30
Dust meter

3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H & S meeting
125 cy of ISM soil in Roll off #52-1
Drilled to 142 bgs

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 EA & Cascade onsite
0720 H & S Meeting
0732 Start setting up on KAFB-10652
1058 Stephen offsite // 1130 Bernie Bachish onsite

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11/7/18

WEATHER: 65°F Sunny

WELL ID: KAFB-10637

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bonnie Boelish	EA - Site Manager/Supervisor
Todd Nickerson	EA - Site Health and Safety Office
Carlos Mantoya/Lance Ambler	Geologist/EA
Roger Rodriguez	Cascade Driller
James Dyer/Lance Sitzman	Cascade Drillers Helper
Joshua Livingston	EA

2. OPERATING EQUIPMENT

Some Drilling Rig, Fork Lift, PID for headspace

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

	H&S meeting
	Drilled to 242 ft logs
	IDW: 3/4 yds in roll off S2-1

4. WORK PERFORMED (indicate location, time, and description of work performed by prime and/or subcontractors)

0630 0700	EA and Cascade onsite
0620 0700	H&S meeting
0630 0730	Rig needs a new boom installed on Breaker ⁱⁿ in Boom
0734	NEW Boom Boom installed, Rig warming up

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11-7-18

WEATHER: Clear sky; low 60s

WELL ID: KAFB-106 S9

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Todd Nickerson	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Mark Green / Forrest Chaffin	Cascade - Lead Drillers
Duane Matthews	Cascade - Drillers' Helpers

2. OPERATING EQUIPMENT *see individual forms*

<i>JM</i>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	Met on site - H&S briefing
-	Installed shallow filter pack to 408.8 ft bgs
-	Installed shallow 30 ft seal to 377 ft bgs
-	Installed grout to ~30 ft bgs
-	Visitors on site: NONE
-	IDW: S9-2 to EA < 90 day yard with 6 yards
<i>JM</i>	

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0600	Met on site - H&S briefing: discussed dust - PPE, proper lifting, rotation and overhead haz., pressure hoses, "struck-by" hazards, forklift operations
	- use a spotter, stay focused and stay safe
0630	drillers continued to set wells

Reviewed by: _____

Initials: _____

Reviewed date: _____

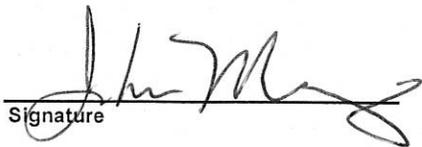
Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 11-7-18

4. WORK PERFORMED (Continued)	
0653	Shallow filter pack (FP) = 417.9 # bgs - 0714 FP installed to 408.8 # bgs
0738	Upper seal = 399.9 # bgs - 0754 drillers hydrated first 10' lift w/≈ 50 gallons - drillers on break - 0805 drillers off break - 0820 Upper seal = 391 # bgs
0841	Upper Seal = 377 # bgs - 0850 drillers hydrated seal w/≈ 100 gallons
0855	drillers hydrated deep seal (5') w/≈ 20 gallons - drillers prep to mix grout
0918	drillers headed to laydown yard to unload pipe truck and hopper full of trash - Todd N. off site + Organic rig - 0950 ACT on site - 1020 ACT off site with S9-2 to <90 day yard - 1020 drillers on site - Todd N. on site
1102	drillers mixed batch #1 of grout (200 gal + 9 bags) - 1105 batch #1 downhole
1108	drillers mixed batch #2 (200 gal + 8 bags) - 1111 batch #2 downhole
1116	drillers began tripping out 9 5/8" casing - 1158 tripped out 120 ft - drillers on lunch
1230	drillers on site - 1243 drillers mixed batch #3 (200 gal + 8 bags) - 1246 batch #3 downhole
1250	drillers mixed batch #4 (100 gal + 4 bags) - 1254 batch #4 downhole
1255	drillers began tripping out 9 5/8" casing - 1334 drillers on break - 1346 drillers off break
1402	All 9 5/8" casing tripped out - 1423 drillers attached 5' 11 3/4" casing to casing in ground + pulled up in prep for grouting + tripping out 11 3/4" casing - tied down 9 5/8" casing on pipe truck
1430	drillers off site to laydown yard - 1530 drillers on site
1545	drillers mixed batch #5 (200 gal + 8 bags) - 1550 batch #5 downhole
1554	drillers mixed batch #6 (200 gal + 7 bags) - 1557 batch #6 downhole
1601	drillers began tripping out 11 3/4" casing - 1622 drillers on break - 1630 drillers off break
1635	drillers mixed batch #7 (200 gal + 8 bags) - 1640 batch #7 downhole
1643	drillers mixed batch #8 (100 gal + 4 bags) - 1645 batch #8 downhole
1650	drillers began tripping out 11 3/4" casing - 1657 All 11 3/4" casing tripped out
1701	Grout = 78 # bgs - 1704 drillers mix batch #9 (200 gal + 8 bags)
1710	batch #9 downhole - 1715 grout ≈ 30 # bgs & will let settle overnight - site cleanup - 1725 Cascade + EA off site - Jm

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name Joshua Messenger

Signature 

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11/8/18

WEATHER: 35°F clear, Humidity 84%, calm @ 0700

WELL ID: KAFB-10652

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Bob Marley / ^{Benny} Bockish	EA - Site Health and Safety Office
Lore Andres	EA Geologist
Joshua Livingston	EA
Roger Rodriguez	Cascade - Lead Driller
"Chris" / Lore Stizman	Cascade - Drillers helpers

2. OPERATING EQUIPMENT

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

	H & S meeting
	Drilled to 316'
total	IDW in 52-1 = 3 yds total

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0600	Meet at site / H&S Brief / Joshua Livingston off site to get generator gassed up / warm up equipment
0650	Begin Drilling
0900	Devon Terrence on site // 0943 D. Terrence off site

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

ROLE: SSHO

DATE: 11-8-18

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
Todd Nickerson	EA - Site Health and Safety Office
Mark Green, Forrest Chattrin	Cascade - Drillers
Duane Mathews	Cascade - Driller helper

2. OPERATING EQUIPMENT					
Team #1		Team #2		Spare	
YSI Professional Plus 15K101398 Wh0003	<input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001	<input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002	<input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005	<input checked="" type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004	<input type="checkbox"/>	MiniRAE 3000 592-91579 Wh0006	<input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008	<input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009	<input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007	<input type="checkbox"/>
Solinst Water Level Meter 253054	<input type="checkbox"/>	Solinst Water Level Meter 253053	<input type="checkbox"/>	Solinst Water Level Meter 253056	<input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0600	Safety Meeting
-	IDW - none onsite
	Visitors - Devon Jercinovic
<i>Todd A. Nickerson</i>	

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0600	Conduct daily health & safety briefing
0630	Mix grout for well construction - Quick Grout #11
	Tagged grout level prior to adding - 64.0' bgs.
0700	Tagged grout level - 45.0' bgs. added 1 bag hole plug to get tag.

DATE:

4. WORK PERFORMED (Continued)

0710	Added 14 bags of Hole Plug, add water to hydrate. grout Tagged @ 32' bgs.
0720	Mix Cement to top off well completion. Portland Quick Gel - 1 20
0730	Pump Cement into borehole. Tagged @ 30'.
0740	Mix another batch of Cement. Portland - Quick gel - 1 22
0800	Cement @ 2' bgs. Pumped Cement wash water into drums. Topped off 2 drums from S5, and filled 1 new drum. 3 drums of Cement Wash water.
0830	Break down equipment and exclusion zone. Move Compressor and other equipment/materials to S4
0940	Mobilize drill rig and all down-hole equipment to lay down yard for decon. Decon rig and equipment. finished @ 13:00
1300	break for lunch
1330	Cascade back @ yard, load support truck with well casing and drill stem
1440	Mobilize equipment and materials to S9 to construct well pad.
1715	well pad completed
1730	End of day
<i>Todd A. Nickerson</i>	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Todd Nickerson
Name

Todd A. Nickerson
Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____

Initials: _____

Reviewed date: _____

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4

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring – 62735DM02
Daily Quality Control Report – Non-Construction

ROLE: _____

DATE: 11/13/18

WEATHER: 21°F, clear, sunny, wind 2mph N
@ 7am Humidity 83%

WELL ID: KLFPS 10052

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Backush	EA - Site Manager/Supervisor
	EA - Site Health and Safety Office
Law Address/Curtis Landers	EA - geologists
Roger Rodriguez	Cascade - Lead Driller
Law Sizemore/James C. Dye	Cascade - Drillers helpers

2. OPERATING EQUIPMENT

Sonic Rig & support truck, PID, Dust meters

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0700 H & S Brief - CREW WARNED EQUIPMENT/PREP FOR DAY

- Drilled to 376 ft bgs

- IDW 3/4 yd into roll off "52-1" for a total of 3.75 yards secured on site

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0600 Meet on site - warm up & gather equipment

0700 - H & S Brief - set up site

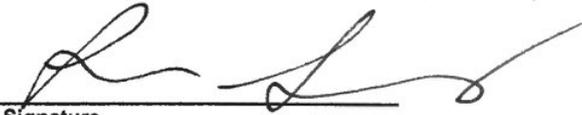
0730 - Begin Drilling // 1230 Drillers break for lunch - Bernie off site for supplies -

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
 Daily Quality Control Report - Non-Construction

DATE: 11/13/18

4. WORK PERFORMED (Continued)	
1250	AAA pumping on site swapping out portable toilet units
1325	Drillers back from lunch - going to weld lines of 1181 'teeth' to outside of coke barrel
1341	call in 'Hot work to' FACC in Kirtland (Fire control center) 1/2 hr before start
1339	Bernie to get fuel for generator off-site - Do clean out Run // 1400 begin welding
1415	Done welding - Lance S. on firewatch
1430	1445 Firewatch over - No incidents
1449	call KAFB Fire Control Center & let them know we were Done -
1642	stop drilling for Night - got to 376 ft bgs - Empty paper of IDW in roll off S2-1 st - 3/4 yds - secured site
1650	Cascade off site // 1720 Bernie B off site
1730	Curtis Lander off site - Lane to trailer to charge equipment & scan field notes & Lock Gate
1745	Lane off site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name: Lane Andrew Signature: 

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11-13-18

WEATHER: 40s; clear sky

WELL ID: KAFB-106S4

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>GARY MESSIER</u>	EA - Site Health and Safety Officer
<u>Joshua Messenger</u>	EA - Geologist
<u>Mark Green / Forrest Chaffin</u>	Cascade - Lead Drillers
<u>Duane Matthews</u>	Cascade - Drillers' Helper

2. OPERATING EQUIPMENT see individual forms

<u>JM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Met on site - H&S briefing</u>
-	<u>Installed 9 5/8" casing to 497 ft logs</u>
-	<u>Visitors on site: AAA</u>
-	<u>IDW: 54-2 on site (5 yd); 54-3 on site (3 yd)</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0600</u>	<u>Met on site - H&S briefing: discussed pinch points, PPE, hand placement, spotter usage, proper lifting, focus + think about every move beforehand, cold weather, hydration, foot placement</u>
<u>0630</u>	<u>Cascade offsite to laydown yard - 0651 Cascade on site</u>

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report -- Non-Construction

ROLE: SSHO

DATE: 11/14/18

WEATHER: CLEAR/COLD

WELL ID: KAFB 10652

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
B. BOCKISCH	EA - Site Manager/Supervisor
B. BOCKISCH / G. DESSENE	EA - Site Health and Safety Office
LANE ANDRESS	EA Geologist
CURTIS LANDERS	EA Geologist
Rufo Rodriguez	Cascade Land Driller
	Cascade Drilling helpers

2. OPERATING EQUIPMENT

Sonic Drilling Rig, Support Vehicle, Forklift

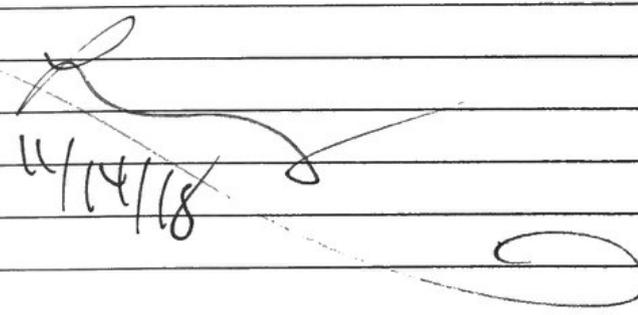
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Safety Brief
 Drilled to 419 ft bgs
 put 3/4 yd³ of EDW soil in Roll off "52-1"

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0600	AT TRAILER, PICK UP FORMS, CALIBRATE EQUIPMENT
0630	PREP FOR DRILL, TGSM
0700	BEGIN DRILLING / SAMPLING
0835	USAGE ON SITE FOR INSPECTION.

DATE: 11/14/18

4. WORK PERFORMED (Continued)	
0840	USACE OFF SITE
1220	Drillers break for Lunch // 1320 Drillers back from Lunch - working on housekeeping & equipment ^{some} stuff // 1345 Resume Drilling
1520	Reach 419' - beginning of zone of interest Drillers take water break - discuss keeping core barrel cold - confer w/ Bernie B on phone - will use a cold core barrel in morning since its below 32°F in morning
1600	- Drillers trip in pipe for Night for safety & work on repairing "TAM" for mast - Lane & Curtis continue photographing & geo-logging back logged cores.
1645	Empty flapper into EDW Ball off "S2-1" - 3/4 yard added
1708	Cascade off site - EA Secures Site
1720	Curtis Leaves off site Lane & Gary Scan paperwork & Lock BFF trailer & Gate
1730	All off site
	 11/14/18

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

11/14/18
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11-14-18

WEATHER: low 50s; clear sky

WELL ID: KAFB-106S4

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Gary Dusselle</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	<u>EA - Geologist</u>
<u>Mark Green / Forrest Chaffin</u>	<u>Cascade - Lead Drillers</u>

2. OPERATING EQUIPMENT see individual forms

<u>JM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Met on site - H&S briefing</u>
-	<u>Installed deep filter pack to 443.3 ft bgs</u>
-	<u>Installed deep seal (SF) to 438.9 ft bgs</u>
-	<u>Installed shallow filter pack to 409.9 ft bgs</u>
-	<u>Installed shallow seal to 375.9 ft bgs</u>
-	<u>Visitors on site: USACE team</u>
-	<u>IDW: S4-2 on site (5 yds); S4-3 on site (3 yds)</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0600</u>	<u>Met on site - H&S briefing: discussed pinch points - proper hand placement, heavy lifting - proper form, dust/noise - proper PPE, think before acting, hydration, overhead hazards</u>
<u>0620</u>	<u>Drillers off site to laydown yard</u>

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

492.2
4.8 D
3.7 S

DATE: 11-14-18

4. WORK PERFORMED (Continued)	
0645	Drillers on site - drillers prep to build wells
0740	drillers began building deep filter pack - 0800 FP = 475.3 ft bgs
0805	visitors on site: USACE - 0813 FP = 475.6 ft bgs
0825	FP = 464.6 ft bgs - 0836 drillers on break - 0843 USACE team off site
0854	drillers off break - 0855 FP = 457.1 ft bgs - 0908 FP = 450.5 ft bgs
0910	drillers began swabbing deep well - 0925 drillers completed swabbing
0936	drillers on break - 1000 drillers off break - drillers began building shallow well
1043	Shallow total PVC = 442.7 ft - 1055 FP = 446.8 ft bgs
1102	FP = 443.3 ft bgs - drillers began installing 5' seal
1120	Seal installed to 438.9 ft bgs - drillers on break - 1130 drillers off break - began installing shallow filter pack
1155	Shallow FP = 447.7 ft bgs - 427.7 ft bgs
1210	Shallow FP = 416.5 ft bgs - 1225 Shallow FP = 410.4 ft bgs
1232	Shallow FP = 409.9 ft bgs - FP installed - 1238 drillers on lunch
1308	drillers off lunch - began installing shallow 30' seal
1328	Shallow 30' seal = 396.5 ft bgs - 1334 drillers off site to get water
1355	driller back w/ pipe truck full of water - 1405 driller hydrated with \approx 40 gal. water
1410	Brian N. on site - begins rig inspection - 1420 Shallow seal = 387.2 ft bgs
1423	drillers hydrated w/ \approx 20 gal. water - 1433 Seal = 375.9 ft bgs - Shallow seal installed - 1440 drillers hydrate w/ \approx 100 gal. water
1535	Brian N. off site - 1536 drillers off site to laydown yard w/ Gary D.
1613	Gary D. + drillers on site - off loading equipment + preparing to govt in morning. - reupholstering equipment - well securing
1642	Cascade off site - 1645 Josh M. + Gary D. off S4 site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Joshua Messenger
Name

John Mung
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

ROLE: Geologist

DATE: 11-15-18

WEATHER: mid 50s; clear sky

WELL ID: KAFB-106S4

1. ONSITE PERSONNEL (Including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Gary Desselle	EA - Site Health and Safety Office
Toshua Messenger	EA - Geologist
Mark Green / Forrest Chatham	Cascade - Lead Drillers
Duane Matthews	Cascade - Drillers' Helper
Matthew Sanchez	Cascade - Drillers' Helper

2. OPERATING EQUIPMENT see individual forms

JM

3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- Met on site H&S briefing
- Installed grout to ~~26~~ 30 ft bgs
- Cement installed to 5 ft bgs
- IDW: S4-2 (5yds) and S4-3 (3yds) off site to EA IDW and EA < 90 day yard, respectively; 3 55 gallon steel drums with cement washout (55 gallons, 50 gallons, and 25 gallons) on site
- Visitors on site: ACT: Martin Aranda
Mike Ramirez

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0600 Met on site - H&S briefing: discussed pressured lines - stay clear, overhead hazards, noise/dust - PPE, forklift operations - spotter use, decou - pressure hoses & think/be aware of where hose is aimed, restrooms have no handwash stations - use alcohol-based cleaner

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring – 62735DM02
Daily Quality Control Report – Non-Construction

DATE: 11-15-18

4. WORK PERFORMED (Continued)	
0645	Mark 6 off site to laydown yard – helpers continue to set up to grout
0652	Mark 6 on site – 0708 drillers hydrate deep seal (5ft) with \approx 15 gal. water and send 100 gal. water down hole – 0715 drillers mix grout batch #1 (200 gal + 10 bags) – 0720 batch #1 downhole – 0725 drillers mix batch #2 (200 gal + 8.5 bags) – 0730 batch #2 downhole – 0740 drillers began pulling 9 5/8" casing – 0807 drillers on break – 0811 drillers off break – began mixing batch #3 (100 gal + 5.0 bags) – 0820 batch #3 downhole
0821	drillers began tripping out 9 5/8" casing – 0922 all 9 5/8" casing tripped out – drillers on break – 0935 drillers off break – 1005 drillers off site to laydown yard
1117	drillers on site w/empty pipe truck filled w/water to continue grouting
1130	drillers mix batch #4 (200 gal + 8.5 bags) – 1135 batch #4 downhole
1138	drillers mix batch #5 (200 gal + 8 bags) – 1143 batch #5 downhole
1145	drillers mix batch #6 (200 gal + bags) – JM began pulling 11 3/4" casing
1218	80 ft of 11 3/4" casing tripped out – drillers on lunch – 1255 drillers off lunch break
1300	drillers began mixing batch #6 (200 gal + 8 bags) – 1307 batch #6 downhole
	drillers mixed batch #7 (gal. ²⁰⁰ + 7 bags) – 1315 batch #7 downhole
1317	drillers began tripping out casing – 1338 11 3/4" casing tripped out
1342	Grout = 61 ft bgs. – 1343 drillers on break – 1353 drillers off break
1358	drillers mixed batch #8 (100 gal + 4.5 bags) – 1402 batch #8 downhole
1404	Grout = 47 ft bgs – 1410 drillers mixed batch #9 (100 gal + 4.5 bags)
1416	batch #9 downhole – 1418 Grout = 26 ft bgs JM 30 ft bgs
1440	drillers mixed cement (100 gal + 20 bags + residual grout) 1/4 bag Halliburton QUIK-GEL bentonite) – 1450 cement downhole – cement = 3 ft bgs
	– drillers begin washout and let cement settle – 1513 deep well bailed – no evidence that well JM grout entered well – cement = 5 ft bgs
1525	Shallow well PVC tag = 442.6 ft bgs – not compromised by grout

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name G. Desselu

Signature [Signature]

DATE: 11-15-18

4. WORK PERFORMED (Continued)

1530	drillers continue site cleanup and prep to mob to laydown yard
1555	S. Messenger off site. (2)
1555	
1618	S. Messenger off site
1645	to laydown yard. Pumping off water in decon pad into on-site Free tank. Prepping for decon tomorrow.
1700	ACT on site
1710	ACT off site
1730	e trailer to process paperwork. to leave after

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name GARY Dessel

Signature [Signature]
Page 438

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: GEO

DATE: 11/15/18

WEATHER: 27° Clear

WELL ID: 52

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bernie Bockisch	EA - Site Manager/Supervisor
Gary Desselle	EA - Site Health and Safety Office
Curtis Landers	EA

2. OPERATING EQUIPMENT

Sonic Drill Rig / support Truck / Forklift

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

[This section is crossed out with a diagonal line and contains the handwritten initials "CPL" in the center.]

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0645	Safety meeting
0700	Bernie left to pick up Jerry from Wright Bit to look at break-out wrenches
0710	Bernie returns on-site

Reviewed by _____ Initials _____ Reviewed date _____

DATE: 11/15/18

4. WORK PERFORMED (Continued)

0740	Bernie escorted Jerry off base and to get dry ice
0800	Bernie arrived back on-site
1013	Drillers shut down rig for repairs
1030	Curtis left site to make copies at BFF field trailer
1039	Curtis arrived back on-site
1230-1200	Drillers took lunch break
1310	DRILLERS BACK FROM LUNCH. FIRE UP RIG
1645	MARTIN W/ACT DROPPED OFF HARD TOP BIN
1655	MARTIN OFF-SITE.
1710	Drillers shut down rig

CPL

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Curtis Landers
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11/16/18

WEATHER: 27°F, calm, clear 75% humidity

WELL ID: KAFB-10652

1. ONSITE PERSONNEL (Including subcontractors and government employees)

Name	Organization
<u>Bernie Berkish</u>	<u>EA - Site Manager/Supervisor</u>
<u>Gary Dosselle</u>	<u>EA - Site Health and Safety Office</u>
<u>Line Address / Curtis Lowers</u>	<u>EA - Geologists</u>
<u>Roger Rodriguez</u>	<u>Cascade - Lead Driller</u>
<u>James C. Dye / Lane Sizmore</u>	<u>Cascade - Drillers Helpers</u>

2. OPERATING EQUIPMENT

Sonic Drill Rig, Support truck w/ interior crane for casing
PID & Dust Monitor

3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H&S Brief
Drilled to 510 ft bgs - total depth
IDW generated 1 cubic yds in roll off "S2-2"

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0600 Arrive on site - Get paper work & equipment together
warm up Rig
0700 H&S Brief -
0715 - Begin Drilling

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report -- Non-Construction

DATE: 11/16/18

4. WORK PERFORMED (Continued)

0930	Sort out reflagged truck - core boxes that can be discarded (into associated IDW roll-off's) and empty core boxes staged in truck -
1245	Drillers break for lunch // 1315 drillers back from lunch - Resume drilling
1649	Drillers pull up sample from total depth e510' bags
1715	Drillers off site - secure roll off S2-2 w/ 1 cy of soil -
1745	Sampling crew off site & Berne B off site plug in equipment to charge - scan paperwork
1800	Leave & off site

[Handwritten signature]
11/16/18

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Love Anders
Name

[Handwritten Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

ROLE: SSHO - S4

DATE: 11/16/18 FRI

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
B. Bockisch	EA - Site Manager/Supervisor
G. Desjard	EA - Site Health and Safety Office
Mark Green	Cascade ↓
Forrest Chatten	
Duane Matthews	
Matthew Sanchez	

2. OPERATING EQUIPMENT

Team #1	Team #2	Spare
YSI Professional Plus 15K101398 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L10054 <input checked="" type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005 <input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006 <input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253058 <input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0616 HA S meeting. To decom & build pad e S4
1207 drillers' lunch. Decom complete.
Completed pad, moved equipment to
S-2 location.
Drillers gone e 1720

4. WORK PERFORMED (indicate location, time, and description of work performed by prime and/or subcontractors)

0745 Rig decom complete, start drill stem decom
1022 forklift decom done, 1040 - decom rig
again. Prep for next well drilling &
S4 pad build (paint bollards), 1207 - lunch

S4

DATE: 11/16/18

WORK PERFORMED (Continued)

145 Resume @ laydown yard. 1304 - to S4. Forest to try to get pad form from last well to not have to build another one. 1328 - Form obtained for S4 pad. Using 60 lb. bags of High Strength Concrete mix for pad. 1444 - Form in ground, 4 holes in place for ballards, rebar inside form.

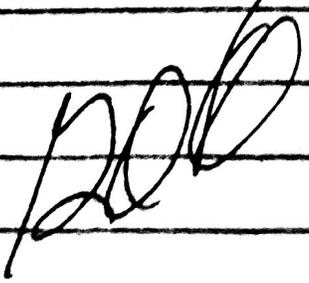
1500 1 bag (50 lb) Fast-Setting Quikrete.
High Strength bags = ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~
1; 32 bags total w/

1 bag of Fast Setting Quikrete.

1620 Moving to S2 area

1705 let driller know we'll need to use the decon pad for the sonic rig tomorrow

1740 Completing reporting, then off site.



Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11/17/18

WEATHER: 29° F, overcast, calm
78% humidity

WELL ID: KAFB 10652

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Gary Dosselle</u>	EA - Site Health and Safety Office
<u>Law Anderson</u>	EA Geologist
<u>Joshua Massey</u>	EA
<u>Curtis Linder</u>	EA
<u>Reyer Rodriguez</u>	Cascade - Lead Driller
<u>James C. Dye / Luke Stroman</u>	Cascade - Drillers helpers

2. OPERATING EQUIPMENT

Arch Rig, PID, Dust Meter

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

M to S Brief
Moved Somic Rig to S3 - deconned casing
Set up Arch Rig on S2
- got 200 ft casing in hole
EDW: roll of S2-1: 16 yards
roll of S2-2: 1 yard

4. WORK PERFORMED (indicate location, time, and description of work performed by prime and/or subcontractors)

0600 meet on site - discuss plan for day
finish logging area, deconn some rigs, Decon
it - move Arch Rig onto S2 to make Somic
Rig to S3 - warm up equipment

Reviewed by: _____

Initials: 1/72

Reviewed date: _____

DATE: 11/17/18

4. WORK PERFORMED (Continued)

0630

0700 HES SW w/ SANC & ARCH CREW - Gary
Dessaloss SHO.

0700 Resume Logging core - begin emptying
Refrigerated truck of core that is no
longer needed -
-Clean at hole KAPB-10652

0804 Having trouble w/ flaming sands

0845 out of hole - Box truck removed/backed up
loading remainder of casing w/ fork lift

0945 getting more casing out of hole

1006 Curtis off site to help Bernice at office
Joshua M to help Lane w moving boxes to
Log and photographs - Bernice off site
-Bernice & Curtis on site assembling lift

1100 SANC Rig to lay down yard

1105 Arch rig setting up on S2 - Break for lunch

1302 - Finish Tagging hole cuttings - clean up
Box truck secure. Refrigerator truck for
transport to S3.

1315 - Gary D. SSHO w/ SANC Crew Decon & Lane A
SSHO w/ ARCH crew setting casing

1330 Curtis Lander off site // 1555 Joshua M off site

1402 ^{Discharge} Hese on cyclone plugged - working on clearing it.

1429 Clear & setting casing again 1550

1656 Added last piece of casing - site cleanup / Secure IDW

1730 Cascade off site // Scan paperwork - 1745 EA off site

5. CONTRACTOR'S VERIFICATION I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andrew
Name


Signature

11/17/18

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2
20/2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11/18/18

WEATHER: ^{cold to} cool, clear, sunny, calm

WELL ID: KAFB-# 10652-53

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Gay Passelle	EA - Site Health and Safety Officer
Lane Address / ^{Messing} Joshua	EA - Geologists
Roger Rodriguez	Cascade - Lead Driller
James G. Dye / Matt Sanchez	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT

SONIC Pq LPID

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H & S Brief
 Recan all sonic casing & core barrels
 collect a rinse sample on each core barrel at rig
 set 400 ft of casing & drill to 416 ft bgs
 1/4 - 1/2 yard of IDW generated & screened in driller's hopper
 for night

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0600 Arrive on site - get equipment & parts
 0630 H & S brief w/ Arch crew - Gary D +
 - lay down yard to watch sonic crew & Arch
 crew - H & S brief w/ sonic crew

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 11/18/18

4. WORK PERFORMED (Continued)

0645	Lane A & Joshua Messinger move refrigerated truck & Box Truck over to KAFB-10653
0825	Gary D back at ARCH rig as SSTO, ARCH crew setting up pipe truck - Lane A to Zia Park Laydown Yard & SSTO Sonic decan activities // 0830 Lane A Arrives at Zia Park Laydown Yard - Sonic Crew is down one person - Lance Sitzmore is at sick
0920	finished Decan of casing & loading into the box truck w/ forklift and box truck lift assembly/crane.
0945	Disconnect pressure washer // 1004 head to S3 w/ trailer & box truck - setting up SONIC rig at KAFB-10653 - secure site boundary & block off bike path using traffic cones & flagging - collect rinsate blanks - one on each core barrel to be used: RB-1 @ RB-2 @
1203	Drillers break for lunch // 1250 Lunch over
1258	Curtis Lander on site // 1259 Begin adding casing to KAFB-10653. Curtis finishes assembling lift for inside refrigerated truck (for lifting heavy core boxes)
1255	Curtis off site to get gas for generator // 1420 Curtis back on site
1435	Casing set at 398 ft bgs - ARCH drilled to 400 ft bgs 1444 Drillers // 1508 pulling out of hole w/ first sonic core run
1527	first core up 400' 408' 409'
1645	Stop drilling - got to 416 ft bgs -

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andrews
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2
2/3

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11-18-18

WEATHER: high 40s; clear sky

WELL ID: KAFB-106S2

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
Gary Desselle	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Mark Green / Forrest Chaffin	Cascade - Lead Drillers
Duane Matthews / Matt Sanchez	Cascade - Drillers' Helpers
2. OPERATING EQUIPMENT <u>see individual forms</u>	
<i>JMM</i>	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	Met on site - H&S briefing
-	Installed 9 5/8" casing to 340 ft
-	Visitors on site: ACT
-	IDW: S2-1 off site to EA IDW yard (16 yd ³); S2-2 onsite (1 yd ³); S2-3 onsite (6 yd ³)
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0600	Met on site - H&S Briefing: discussed making equipment use spatter, don't stand next to pipe truck while it's being loaded, rotation haz. - pinch points, dust/noise - PPE, grad housekeeping
	- keep work areas clean +

ROLE: Geology 1st

DATE: 11/19/18

WEATHER: 29°F, 59% humidity, calm clear
 @ 0730

WELL ID: KAFB-10653

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Gary Desselte	EA - Site Health and Safety Office
Love Anders / Curtis Lander	EA - Geologists
Roger Rodriguez	Cascade - Lead Driller
James C. D'Ve	Cascade - Driller's Helper
Long Skremore / Matt Sanchez	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT

H/S Sonic Reg - support truck, PID

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H/S Brief
Drilled to 459 ft by
IDW on site: 1 cubic yard of soil in
Roll off "S2-2"

4. WORK PERFORMED (indicate location, time, and description of work performed by prime and/or subcontractors)

0600	All meet at trailer - Arch & Service Crews
	H/S Brief - gather forms & equipment
	- warm up Reg - set up to drill
0650	Bernie Backish on site w/ plywood for running

DATE: 11-19-18

4. WORK PERFORMED (Continued)

0843 - Lift on in Refrigerated truck & ^{wet} ice for core barrels
 bring up first run of day @ 0843: 416-423'

1233 - Drillers break for Lunch // 1320 Drillers Back - Resume drilling

1429 - Bump Test New PID Rental from Geotech: Fonscience
 photo check "Procheck Tiger" # Geotech # 3541

Bump Test w/ 100ppm isobutylene gas = 102.7 ppm
 Using this to run PID's on soil as it is less susceptible
 to moisture than the MiniPac's are.

1615 - Kevin McKeage & Johnathan Livingston on site to take samples

1700 - Kevin & Jonathan off site to ship samples

1705 - Empty hopper into roll off "S2-2" - 1 cubic yard
 - secure site for night

1725 - take equipment to trailer // 1730 Curtis Landers
 off site
 - scan paperwork
 Lane A & Gary D off site -

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 - 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11-19-18

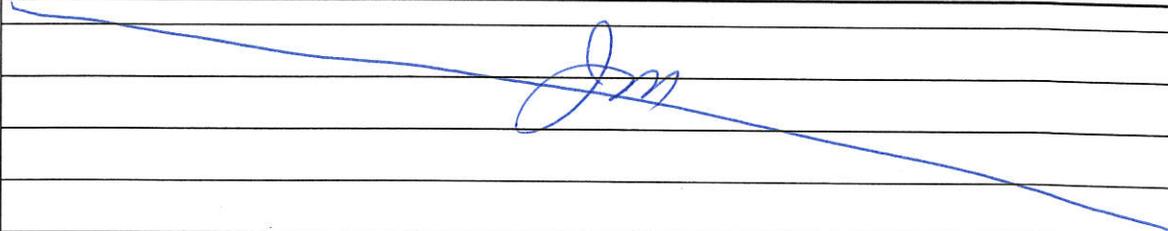
WEATHER: mid 50s ; clear sky

WELL ID: KAFB-10652

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Gary Desselle</u>	EA - Site Health and Safety Office
<u>Mark Green / Forrest Chaffin</u>	<u>Cascade - Lead Drillers</u>
<u>Duane Matthews</u>	<u>Cascade - Drillers' Helper</u>

2. OPERATING EQUIPMENT See individual forms

	
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3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>met on site - H&S briefing</u>
-	<u>installed 9 5/8" casing to 502 ft bgs</u>
-	<u>installed deep filter pack to 346.8 448.8 ft bgs</u>
-	<u>installed deep seal to 444 ft bgs</u>
-	<u>Visitors on site: NONE</u>
-	<u>IDW on site: S2-3 (12 yd³) and S2-2 (4 yd³)</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0600</u>	<u>Met on site - H&S briefing: discussed noise/dust - PPE, pinch points, lift properly, moving equipment - spotter use, overhead hazards</u>
<u>0630</u>	<u>drillers conduct rig/equipment inspection</u>
<u>0650</u>	<u>drillers began reaming/installing 9 5/8" casing</u>

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report -- Non-Construction

DATE: 11-19-18

4. WORK PERFORMED (Continued)	
0755	drillers informed EA that air wasn't cycling properly and that they would trouble shoot -
	driller suspected faulty gate valve - 0805 driller informed EA that a flapper
	broke - drillers remove faulty flapper + check second flapper - second flapper broke too
0813	- drillers remove faulty parts and continue reaming / installing casing
1018	driller installed casing to 502 ft bgs - driller washed out borehole w/ ~400 gal. water
1052	driller added 400 gal. water for hydrostatic head - began tripping out bit + stem
1123	bit tripped out - 1130 drillers prep to build deep well
1145	drillers began building deep well - 1146 drillers on lunch break
1224	drillers off lunch break - 1303 total length of deep well PVC = 497.4 ft = 4.4 ft ags stickup
1305	drillers prep to build deep filter pack - 1300 drillers on break - 1337 drillers off break
	- began installing deep filter pack - 1408 FP = 483.4 ft bgs
1418	FP = 476 ft bgs - 1431 drillers on break - 1439 drillers off break
1441	FP = 467 ft bgs - 1453 FP = 459.5 ft bgs - 1506 FP = 452.9 ft bgs
1509	FP = 449.1 ft bgs - drillers prep to snab deep well - 1520 snabbing began
1526	Snabbing ended: FP = 449.5 ft bgs - 1534 drillers on break - 1544 off break
	- began building shallow well - 1618 total length of shallow well PVC = 442.7 ft
	- 442.7 + 4.8 = 447.5 ft = 3.5 ft ags stickup
1630	Deep filter pack = 449.5 ft bgs - 1631 Deep filter pack = 448.8 ft bgs
1633	drillers began installing deep seal - 1647 Seal = 446 ft bgs
1648	Seal = 444.6 ft bgs - 1650 Seal = 444 ft bgs - drillers began
	installing shallow filter pack - 1656 drillers added 1 bag sand for
	shallow filter pack + secured wells - site cleanup
1708	drillers off site - 1710 Josh M. off site
	<i>JM</i>

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name Joshua Messenger

Signature *John Meyer*

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____ Initials: _____ Reviewed date: _____

ROLE: Geologist

DATE: 11-20-18

WEATHER: 27°F, 62% humidity, wind 3mph N
 @ 0618 clear, barometer 30.25 ↑

WELL ID: KAFB-10653

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Gary Pesselle</u>	EA - Site Health and Safety Office
<u>Curtis Lambert/Lore Andress</u>	EA - Geologists
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>Lance Sizemore/Denise Matthews</u>	Cascade - Drillers helpers

2. OPERATING EQUIPMENT

Some Rig & Support truck, PID

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- H&S Brief
- Drilled to 489 ft bgs
Total IPW on site in roll off SZ-2: 1.5 yds

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0600 Meet at trailer - H&S Brief
Gather equipment & forms - Drillers warm up equipment
0700 Drillers Begin drilling
0715 Seal on Ram for pipe joints blew - No hydraulic

DATE: 11-20-18

4. WORK PERFORMED (Continued)

	oil got into borehole to ~ 1 cup spilled near Ram on platform & dripped onto visqueen under rig & was absorbed / cleaned up w/ absorbent pads & put in oily rag storage bin bin of Cascades for proper disposal
0720	- Roger R. said it will take ~ 45 Min to repair call Bernie to inform him // 0825 Resume Drilling as Ram is repaired inform Bernie B
0913	pull up 1 st run of day 459-464 - seal on ^{pipet jaws} RAM is leaking again - Cascade working on it
1017	bring up 2 nd run & seal is leaking again - Cascade trouble shooting & repairing a bolt issue on RAM
1041	Resume Drilling 1158 Drillers Break for lunch permit // ¹²³⁰ Resume Drilling & Lane Back w/ New Hot work permit
12:45	B. BOUWISCH AW SITE - SSHO - CREW TAKE LUNCH
1315	crew back from lunch - SSHO to ARCT Rig
1636	Bernie B off site - Kevin M & Joshua L on sampling, bottles for Lab analysis.
1646	Kevin & Joshua off site to ship samples
1658	Empty hoppers into roll off "S2-2" a total of 1/2 yard dumped - secure site for night
1705	Cascade off site - Gary & Lane to trailer Scan park
1730	Lane & Gary off site
	11/20/18 

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
Name


Signature

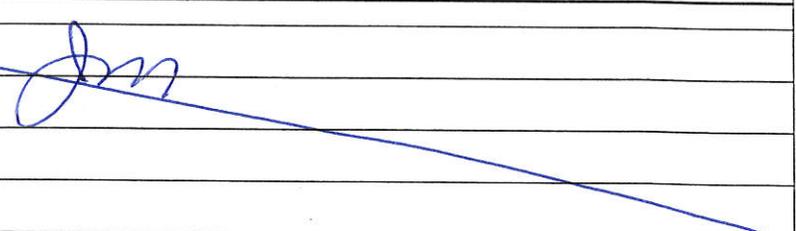
EA Engineering, Science and Technology Inc., PBC

ROLE: Geologist

DATE: 11-20-18

WEATHER: mid 50s - partly cloudy

WELL ID: KAFB-10652

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>Gary Desselle</u>	EA - Site Health and Safety Office
<u>Joshua Messenger / Carlos Montoya</u>	EA - Geologists
<u>Mark Green / Forrest Chaffin</u>	Cascade - Lead Drillers
	Cascade - Drillers' Helpers JM
2. OPERATING EQUIPMENT <u>see individual forms</u>	
	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	<u>Met on site - H&S briefing</u>
-	<u>Shallow filter pack installed to 415.1 f bgs</u>
-	<u>Upper seal installed to 384 f bgs</u>
-	<u>Grout installed to ~205 f bgs</u>
-	<u>IDW on site: S2-2 (3 yd³) and S2-3 (15 yd³)</u>
-	<u>Visitors on site: NONE</u>
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0600</u>	<u>Met on site - H&S briefing: discussed dust/noise - PPE, proper lifting, overhead hazards - look up/keep head on a swivel</u>
<u>0630</u>	<u>Drillers set up - 0645 drillers continue to install shallow filter pack</u>
<u>0720</u>	<u>Shallow FP = 435.9 f bgs - 0740 Shallow FP = 427.9 f bgs</u>

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 11-20-18

4. WORK PERFORMED (Continued)	
0752	drillers on break - 0805 Mark G. off site to S3. - 0821 Mark G. on site
0832	drillers resume setting wells - 0840 Shallow FP = 4/20 # bags
0843	Shallow filter pack installed to 415.1 # bags - drillers began installing
	upper seal (30') - 0857 Seal = 407.4 # bags - 0905 drillers hydrated first
	lift w/ 20 ²⁵ gal. water - 0920 Seal = 398.7 # bags - drillers hydrated
	second lift w/ w 25 gal. water - 0950 Seal = 386.2 # bags
0952	Seal = 384 # bags - seal installed - 0955 driller hydrates seal w/ w 100 gal.
	- driller hydrated lower seal w/ w 50 gal.
1022	drillers off site to laydown yard - Josh M. off site to EA field office
1100	Josh M. on site - 1107 drillers on site - prep to mix grout
1114	driller adds 100 gallons downhole - 1120 drillers on lunch break
1205	drillers off lunch break - 1212 drillers mix grout batch #1 (200 gal + 9 1/4 bags)
1218	batch #1 downhole - 1222 drillers mix batch #2 (200 gal + 8 3/4 bags) - 1225 batch #2 downhole
	- drillers began tripping out casing - 1248 drillers trip out 100 ft casing - on water break
1300	drillers off break - mixed batch #3 (100 gal + 5 bags) - 1306 batch #3 downhole
	- drillers began tripping out 9 5/8" casing - 1334 drillers on water break - 1348 off break
1417	All 9 5/8" casing tripped out - 1505 drillers off site to laydown yard = unloading
	pipe truck & bringing to shop for repairs - work completed for
	today
1510	Josh M. off site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Joshua Messenger
Name


Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

ROLE: Geologist

Daily Quality Control Report - Non-Construction

WEATHER: _____

DATE: 11/21/18

WELL ID: KAFB-10653

1. ONSITE PERSONNEL (Including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Greg Desselte	EA - Site Health and Safety Office
Low Andress / Chris Landers	EA Geologists
Roger Rodriguez	Cascade - Lead Driller
Lance Sizemore	Cascade - Driller's helpers

2. OPERATING EQUIPMENT

Some Rig, Support truck, PWD

3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H&S Brief
 Drilled to total depth in KAFB-10653 @ 512 ft bgs
 IDW on site - 2.75 yards in roll off "53-2"
 (*note error on yesterday's DQCR, IDW as reported was in roll off "53-2" - Not 52-2)
 Scoured site boundary registered bike path access
 scoured well for Break.

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0600 All meet at trailer - H&S Brief
 - Gather equipment - Drillers warm up rig
 - set up work areas
 0630 Begin drilling

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 11/21/18

4. WORK PERFORMED (Continued)

0745	Bring up First core run.
0930	Bring up Last core Run - TD = 512 ft bgs clean out hole - Remove casing from hole & put in support sonic truck - // Bernie B on site
1215	Drillers Break for Lunch, Bernie to BPF trailer to direct Kevin on Sampling.
1230	Bernie, Curtis & Gary organizing refrigerated truck lane slurry box truck for next well
1336	³ / ₄ yard of core bags ^{From 53} emptied into roll off 53-2 - Drillers emptied hopper w/ ~1/2 yard cuttings from 53 - for a total of 2.75 yards in "53-2" - secured roll off - ARCT crew staging equipment & supplies to set well KATB-10653
1345	call in Hot Work to KATB-FAEC // 1359 - tack
1358	weld cover on borehole KATB-10653 for break - Box truck secured to move - Bernie & Curtis go to fuel
1423	Cascade takes Sonic Rig & trailer w/ core barrels to lay down yard - Lane completes Firewatch
1415	ACT ^(Meeting) on site to move roll off "53-2" to <90-Day Area for break // 1430 Martin w/ ACT off site w/ roll off 53-2 // 1430 Cascade returns & picks up Sonic support Box truck & moves to lay down yard
1438	call KATB FAEC - Firewatch over - move box truck to BPF yard - unload equipment in trailer - scan paperwork - Lane off site

Refrigerated
Truck

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
 Name


 Signature


 11/21/18

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11-21-18

WEATHER: mid 50s

WELL ID: KAFB-10652

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Gary Desselle</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Mark Green / Forrest Chaffin</u>	Cascade - Drillers

2. OPERATING EQUIPMENT See individual forms

[Handwritten signature]

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- Met on site: H&S briefing
- Installed grout to 48 ft bgs
- Installed bentonite chips (3/8") to 31 ft bgs
- Installed well pad and bollards
- Visitors on site: AAA and ACT
- IDW on site: S2-2 and S2-3 off site to EA IDW yards.

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

- 0600 Met on site: H&S briefing: discussed dust/noise - Proper PPE, overhead hazards, pinch points, hydration
- 0720 Forrest C. on site with replacement pipe truck
- 0745 AAA on site to service restroom - Mark G. off site to get barrier Caps

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report -- Non-Construction

DATE: 11-21-18

4. WORK PERFORMED (Continued)	
0810	AAA off site - 0808 Mark G. on site - 0812 drillers put # 200 a Jan
0815	drillers mixed batch # 4 (300 gal + 12 bags) - 0820 batch # 4 downhole
0827	drillers mixed batch # 5 (250 gal + 10 bags) - 0830 batch # 5 downhole
0835	drillers on break - 0838 drillers off break - began tripping out 11 3/4" casing
0910	Tripped out 100 ft of 11 3/4" casing - 0920 drillers mixed batch # 6 (200 gal + 9 bags)
0925	batch # 6 downhole - 0930 drillers mixed batch # 7 (200 gal + 8 bags)
0932	batch # 7 downhole - 0935 drillers began tripping out remaining 11 3/4" casing
0950	All 11 3/4" casing tripped out - drillers on water break - 1014 off break
1015	grout = 75 ft bags - 1025 drillers mixed batch # 8 (200 gal + 8 bags)
1028	batch # 8 downhole - 1032 drillers mixed batch # 9 (100 gal + 4 bags)
1034	batch # 9 downhole - 1036 drillers on break - 1038 off break
	- grout = 54 ft bags - drillers mixed batch # 10 (100 gal + 4 bags)
1045	batch # 10 downhole - grout = 42 ft bags - drillers mix batch # 11 (100 gal + 4 bags) - batch # 11 downhole - grout = 48 ft bags
1100	drillers add 5 bags of 3/8" chips - top of chips = 43 ft bags
1104	drillers add 8 bags of 3/8" chips - top of chips = 31 ft bags - driller hydrates chips w/ ~ 30 gal. water. - 1115 drillers mix cement
1120	cement down hole to ~ 3 ft bags
1128	drillers put cement washout into steel drums - 1145 driller bails deep well - water clear: no sign of grout intrusion - 1148 driller sends bails down shallow well - no sign of grout intrusion - 1205 drillers on lunch
1255	drillers on site - site clean up - 1430 drillers began well pad construction
1450	ACT onsite to remove rolloffs - 1525 ACT off site
1730	Well pad installed - wells secured - 1745 Cascade + EA off site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Joshua Messenger
Name

John Meyer
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 11/26/18

4. WORK PERFORMED (Continued)	
0750	Forrest chaffin and CASCADE HEAD onsite
0752	ACT dropped off Roll off at KAFB-10651
0822	Sonic crew begins to Decon core Barrels
0829	Arch Rig begins to move ⁱⁿ equipment from KAFB-10652 ^{cm} to KAFB-10653 and ACT dropped off Roll off @ KAFB-10653
0838	Mark Green onsite
0926	Arch Rig crew Finished moving materials to KAFB-10653 and moves to Decon yard
0928	Arrived @ Decon Yard // 1038 Mark Green offsite
1044	Sonic crew Finished Decon, Arch crew start Decon
1051	Bernie Buchish onsite to fill in as SSHO
1100	Sonic Rig and crew moved to KAFB-10651 and Arch crew pumping off Decon water from Decon Pad into Backup Tanks
1128	Mark Green onsite
11:44	SENT CARLOS TO HELP W/ S-1 SET UP. DRIVER'S DECONING
1152	ARCH CREW OFF FOR LUNCH. HEAD OVER TO S1
12:10	MOVED BOX TRUCK, REEFER, STAIRS TO S1 LOCATION
12:30	MOVED EQUIPMENT INTO BFF. SONIC CREW WENT TO LUNCH. ARCH CREW BACK FROM LUNCH. CONTINUING DECON.
13:43	ARCH CREW BROUGHT FORK LIFT TO SONIC CREW - THEIR FORK LIFT ISN'T WORKING.
13:55	ARRIVED AT S1. CREW TRIED REMAINING CONCRETE BLOCK OVER S1 W/ BOLT, CABLE, AND FORK LIFT. BOLT BROKE. WERE NO ONE WAS IN THE LINE OF FIRE AND NO INJURIES. CREW WENT TO GET EYEBOLT.

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name _____

Signature _____

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

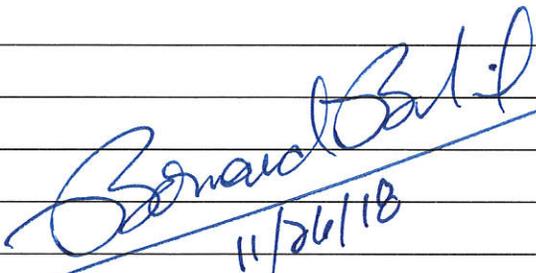
Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report – Non-Construction

DATE: 11/26/18

4. WORK PERFORMED (Continued)	
1370	Sonic Crew advised us that the Forklift ^{Hand} Brake has broken in the on position and must be repaired. Arch rig will lend them their Forklift for the time being
1356	Arch rig's Forklift onsite
1350	Near miss reported to USACE, EA, and cascade safety programs for failed lift activity due to hardware. New I-Bolts and a nylon sling implemented to remove concrete blocks
1421	Flagging put up to delineate exclusion zone
1420	Carlos Montoya off site
1422	Label Roll-off "SI-1"
1600	United Rentals on-site to repair forklift, LANE OFFSITE
1606	United Rentals left site after repairs
1608	All blocks removed and drill rig moved into position SONIC CREW SETS UP DRILL RIG
1630	SET UP REEFER/BOXTRUCK, COMPLETED DRILL RIG SET UP.
1700	OFF SITE
 11/26/18	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

BERNARD BODITSCH
Name


Signature

EA Engineering, Science and Technology Inc., PBC

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
 Daily Quality Control Report – Non-Construction

DATE: 11/26/18

4. WORK PERFORMED (Continued)

1430	CREW BROUGHT FORK LIFT BACK TO DECON AREA AND CONTINUED DECON. CARLOS M. OFF-SITE
1531	MOVE FORK COMPLETE DECON. MOVE FORKLIFT BACK TO S1 TO REMOVE CONCRETE BLOCKS
16:00	BLOCKS REMOVED FORKLIFT TO ARCH RIG. UNITED RENTALS ON SITE TO REPAIR FORKLIFT
1630	ARCH CREW SET UP RIG AND SUPPORT VEHICLE
1720	OFF SITE

Bernard Boucsein
 11/26/18

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

BERNARD BOUCSEIN
 Name

Bernard Boucsein
 Signature

EA Engineering, Science and Technology Inc., PBC

ROLE: Geologist

DATE: 11-27-18

WEATHER: 24°F, clear, 56% humidity, calm
barometer: 30.28 ↑

WELL ID: KAFB-10651

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Bockish	EA - Site Manager/Supervisor
Gary Dessel ^{Bernie Bockish}	EA - Site Health and Safety Office <u>Gary Dessel</u>
Lore Andress / <u>Carlos Montoya</u>	EA - Geologists
Roger Rodriguez	Cascade - Lead driller
James C'Due, Lore Sizemore	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT

<u>Some Rig & Support Box truck, PID</u>

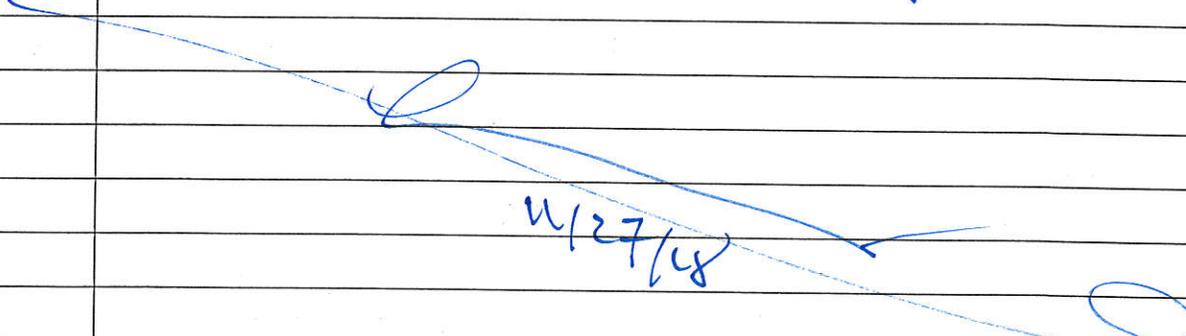
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

<u>H&S Brief</u>
<u>Collect RWSate blanks on 2 core barrels</u>
<u>Drill to <u>156 ft bgs</u></u>
<u>IDW in roll off "SI-1" <u>1.75</u> yds.</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

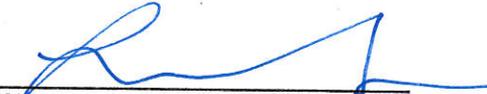
<u>0700</u>	<u>H&S Brief - discussed Near Miss yesterday, PT</u> <u>& using Right tool for the job - want put the concrete</u> <u>blocks back in hole, will use a steel plate</u>
<u>0730</u>	<u>Head to KAFB-10651 w/ equipment & forms</u>

DATE: 11/27/18

4. WORK PERFORMED (Continued)	
0800	Collect Rinsate blanks on 2 core barrels before use at this location // 0815 Begin Drilling
0818	Bump test PID: Mini Roe 3000 - SN: 592-905125, geotech # 3245 - 200 ppm+ - recalibrated & Bump after calibration = 95.0 ppm (w/ 100 ppm isobutylene) w/in 10% - OK.
0832	First core of KAFB-10651 up 8'-16'
1130	Carlos M. to KAFB-10653 to set well.
1230	Drillers break for lunch // 1310 Drillers back - Gary Deselle back on as SSHO
1640	Drilled to 156 ft bgs stop for night
1650	Empty 2nd hopper of day - a total of 1.75 yds of IDW soil is in Roll-off #51-1 st secure roll off for night - Nick Sandoval stopped by the site - he spoke w/ Bernie Bockush
1710	Secure site - 1715 Cascade off site - head to trailer to scan forms
1725	Lane, Josh & Curtis & Bernie off site
	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11/27/18

WEATHER: 51° F Sunny

WELL ID: KAFB-10653

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bonne Bochisz	EA - Site Manager/Supervisor
Gary Dessel	EA - Site Health and Safety Office
Mark Green / Forest Chaffin	Cascade Drillers
Dwane Matthews	Cascade Driller Helper
Carlos Montoya	EA / Geologist

2. OPERATING EQUIPMENT

Arche Drilling Rig, Fork Lift.

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

4.25 IDW in Roll off # 53-2
Installed first (Deep Well) sand pack to 447' bgs
Installed Bentonite to 441.8 bgs
Installed sand pack (shallow Well) to 421' bgs

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	H2S meeting
0725	Work started @ KAFB-10653,
0850	TD reached and now cleaning out hole
1055	Casing in hole

ROLE: Geologist

DATE: 11-28-18

WEATHER: high 50s; clear sky

WELL ID: KAFB-106 S1

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Gary Desselle	EA - Site Health and Safety Office
Roger Rodriguez	Cascade - Lead Driller
James Due / Lance Sizmore	Cascade - Driller's Helpers
Joshua Messenger / Curtis Landers	EA - Geologists

2. OPERATING EQUIPMENT see forms

PID = SN: 592-905125

[Signature]

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- Met on site - H&S briefing
- drilled to 256 ft bgs
- Installed casing to 246 ft bgs
- IDW on site - S1-1 (1.5 yd³)
- Visitors on site - NONE

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 Met on site - H&S briefing: discussed cold weather, moving parts, use spotters, keep head on a swivel - think before acting

0720 drillers warm up equipment + prep for drilling activities

0800 drilling activities began - 0828 core run 156-166' out

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report -- Non-Construction

553 Gullery

ROLE: Geologist

DATE: 11/28/18

WEATHER: 59° Partly Cloudy

WELL ID: 16AFB-10653

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Bochish	EA - Site Manager/Supervisor
Gary Dessel	EA - Site Health and Safety Office
Carlos Montoya	EA/ Geologist
Mark Green / Forrest Chaffin	Cascade / Drillers
Donne Mathews	Cascade / Driller helper

2. OPERATING EQUIPMENT

Arch Drilling Rig, Casing Tuelcs, Forklift, PIPE/WATER TRUCK

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Installed shallow sand pack to 412.5' bgs
Installed shallow Bentonite sed to 380' bgs
Installed GROUT to 30' bgs

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	H+S meeting
0714	Rig warm up
0724	Bryn Vadose onsite // Bryn Vadose offsite
0730	Began pouring sand

Reviewed by: _____ Initials: _____ Reviewed date: _____

**Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report -- Non-Construction**

DATE: _____

4. WORK PERFORMED (Continued)	
0750	As Cont finished installing sand pad to 412.5' bgs, begin installing Hydrolog seal
0803	Bentomite chips up to 391' bgs
0812	Bentomite chips up to 387' bgs
0824	" " 383.1' bgs, ¹⁶ / _{CM} bags of chips used
0829	" " 380' bgs, 20 bags of chips used
0830	^{Shallow} Bentomite seal installed, started setup for mixing grout, hydrated chips with 100 gal of water
0906	Drillers headed to lay down yard, to off load pipe and refill water truck
1000	Drillers broke onsite and start mixing Batch #1 of Grout (~200 gallons)
1022	Batch #1 of Grout down hole (~200 gal) // 1024 started mixing Batch #2
1030	Batch #2 down hole (~200 gal) // 1032 started ^{pulling up 1 9/8 casing} mixing Batch #3 _{cm}
1102	ACT onsite // 1103 Act offsite will return later to pick up Roll off #53-2
1120	Stopped pulling 9 5/8 casing and started mixing Batch #3 of Grout // 1123 Batch #3 down hole (~120 gal)
1128	Started pulling up 9 5/8 casing
1214	finished pulling up 9 5/8 casing, breaking for lunch
1245	ACT onsite to pick up Roll off #53-2
1250	Cascade onsite, started pulling 11 3/4 casing
1316	Cascade headed to lay down yard to off load casing, and ACT offsite
1338	Cascade onsite
1348	Started mixing Batch #1 of Quick Grout
1353	Batch #1 of Quick Grout down hole (~200)

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name _____

Signature _____

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11-29-18

WEATHER: mid 50s; clear sky

WELL ID: KAFB-106S1

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Gary Desselle</u>	EA - Site Health and Safety Office
<u>Joshua Messenger / Curtis Landers</u>	EA-Geologists
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>James Due / Lance Sizmore</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

<u>JM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Met on site - H&S briefing</u>
-	<u>Drilled to 310 ft bgs</u>
-	<u>Installed casing to 306 ft bgs</u>
-	<u>Visitors on site: AAA</u>
-	<u>IDW on site: S1-1 (2.5 yd³)</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Met on site - H&S briefing: discussed hydration even in cold weather, welding bit - reviewed Hot Work Permit; think before acting</u>
<u>0706</u>	<u>Entered BFF - 0710 drillers warm up equipment - 0735 drillers began tripping out bit - 0755 bit tripped out - 0803 drillers bring bit (in box truck)</u>

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 11/29/18

WEATHER: 57°F Mostly Cloudy

WELL ID: KAFFB-10653

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Bochish	EA - Site Manager/Supervisor
Gary Bessel	EA - Site Health and Safety Office
Carlos Montoya	EA / Geologist
Mark Green / Forrest Chaffin	Cascade / Drillers
Duane Mathews	Cascade / Drillers Helper

2. OPERATING EQUIPMENT

Arch Drilling Rig, Forklift, Pipetruck

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H&S Meeting
Installed surface completion

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	H&S Meeting
0711	Cascade Drillers start Rig warm up
0727	Added event @ 30' bgs
0740	Started mixing cement

ROLE: Geologist

DATE: 11-30-18

WEATHER: high 40s; partly cloudy; breezy

WELL ID: KAFB-106 S1

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Gary Desselle</u>	EA - Site Health and Safety Office
<u>Joshua Messenger / Curtis Landers</u>	EA - Geologist
<u>Royer Rodriguez</u>	Cascade - Lead Driller
<u>James Due / Lance Siesmore</u>	Cascade - Driller's Helpers
<u>Elon Okmalia / Kaylian Robinson</u>	EA - Geologists' Helpers

2. OPERATING EQUIPMENT see individual forms

<u>JM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Met on site - H&S briefing</u>
-	<u>Drilled to 316 ft bgs</u>
-	<u>Installed casing to 310 ft bgs</u>
-	<u>IDW on site: S1-1 (3 yd²), S1-2 (empty)</u>
-	<u>Visitors on site: ACT</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Met on site - H&S briefing: discussed decom ops - leave pumps on secondary containment when disconnecting hoses, weather - take breaks + utilize hot water/hand warmers if needed, hydration, slips-tips-falls, and traffic - police.</u>

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

ROLE: SSMO

DATE: 11/30/18

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
B. Bockwicz	EA - Site Manager/Supervisor
G. Pesselle	EA - Site Health and Safety Office
Mark Green	Cascade
Duane Matthews	- David Rezzonio (CDLP) - Roger Rodriguez (CDLP)
Forrest Chatkin	
Matt Cain	
Launce Sitemon*	
James C. Dyer*	

2. OPERATING EQUIPMENT

Team #1	Team #2	Spare
YSI Professional Plus 15K101398 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005 <input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006 <input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Health and safety meeting conducted
Decom e. laydown yard
* 2 sonic crew to help e. yard
after sonic rig down due to a mechanical issue.
Matt Cain brought USA rig for well development. 20
development.
Casing for SVE wells^e delivered to the site.

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 M&S meeting. 0830 Begin decom. 1220 Lunch
1300 Return. 1313 David Rezzonio (CDLP) on site to
deliver pipe for SVE wells, 1350 D. Rezzonio off site
1455 Roger / James to get sonic rig. 1532 Martin Arrando (ACT)

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

ROLE: _____

PG 2

DATE: 11/30/18

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
	EA - Site Health and Safety Office

2. OPERATING EQUIPMENT

Team #1	Team #2	Spare
YSI Professional Plus 15K101396 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005 <input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006 <input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

on site 1556 Martin off site, Rig decon.
1607 ACT dropped w/ut roll off to SI site.
1640 SI Sonic rig back @ SI site.
1707 Cascade off site, to resume demob
tomorrow 12/1/18. 1725 GID offsite

[Handwritten signature]

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
 Daily Quality Control Report - Non-Construction

ROLE: SSHO-KAFB10653

DATE: 12/1/18

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
G. Desselle	EA - Site Manager/Supervisor
G. Desselle	EA - Site Health and Safety Office
Made Green	Cascade
Forrest Chaffin	Cascade

2. OPERATING EQUIPMENT

Team #1	Team #2	Spare
YSI Professional Plus 15K101398 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005 <input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-91579 Wh0006 <input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Completed decan & demob prep.
 To remove remaining equipment
 on Monday -

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0900 Crew @ site; M & S meetings. Finish decan & demob prep.

1400 Cascade off site - END DAY @ yard AD

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 12-1-18

WEATHER: 40s; partly cloudy; breezy

WELL ID: KAFB-10651

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>Gary Desselle</u>	EA - Site Health and Safety Office
<u>Joshua Messenger/Curtis Landers</u>	EA - Geologist
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>James Dne/Lance Swamore</u>	Cascade - Driller's Helpers
2. OPERATING EQUIPMENT <u>See individual forms</u>	
<u>Jms</u>	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	<u>Met on site - H&S briefing</u>
-	<u>Drilled to 376 ft bgs</u>
-	<u>Installed casing to 368 ft bgs</u>
-	<u>IDW on site: S1-1 (8yd³); S1-2 (empty)</u>
-	<u>Visitors on site: NONE</u>
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0700</u>	<u>Met on site - H&S briefing: discussed the weather - windy conditions and shutdown @ 35 mph sustained winds; hydration</u>
<u>0850</u>	<u>Core run 316-326' out - 1010 Core run 326-336' out</u>
<u>1145</u>	<u>Core run 336-345' out - 1230 Core run @345-346' out</u>

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 12-2-18

WEATHER: mid 40s; Cloudy; breezy

WELL ID: KAFB-106S1

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Gary Desselle</u>	EA - Site Health and Safety Office
<u>Joshua Messenger / Carlos Montoya</u>	EA - Geologists
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>James Due / Lance Sizmore</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

<u>JM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Met on site - H&S briefing</u>
-	<u>Drilled to 406 ft bgs</u>
-	<u>Installed casing to 406 ft bgs</u>
-	<u>IDW: S1-1 (8 yd³); S1-2 (empty); hopper (3/4 yd)</u>
-	<u>Visitors: NONE</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Met on site - 0720 H&S briefing: discussed slips-trips-falls, hydration and adequate breaks</u>
<u>0815</u>	<u>Core run 376-380' out - 0850 Core run 380-386' out</u>
<u>0915</u>	<u>drillers hook up pickup to trailer in prep to well bit outside of BFF</u>

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: SSH0

DATE: 12-3-18

WEATHER: _____

WELL ID: KAFB-10653

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Lane Andrews</u>	EA - Site Health and Safety Office
<u>Matt Cain</u>	<u>Cascade</u>

2. OPERATING EQUIPMENT

CME -85, YSI water quality Meter, Hach 2100Q
turbidity meter

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0925 H&S Brief
Well Development on KAFB-10653 - deep well
- Remove 30 gallons of water w/ surge & bail
- one steel drum w/ 30 gallons of purge water on site - properly labeled

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0815 Meet at Zia Park Laydown Yard - discuss plan for day - get paperwork together
0925 H&S Brief & mobilize to KAFB-10653 for well development

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 12-3-18

4. WORK PERFORMED (Continued)

1007	Arrive at KAFB-106S3 - set rig up on visquene next to well, reset traffic control to block bike path & make an exclusion zone.
1100	get steel drums for purge water
1133	Depth to water in KAFB-106S3, deep well: 477.44 ft below ^{top of} well casing - stick up on well casing is ~2.5 ft \Rightarrow IDIW = 474.94 ft bgs
1145	Cascade Decon's their tape measure to get depth to bottom in both wells - & adds a ^{new} 300 ft tape to their 300 ft tape. - Depth to Bottom of Shallow/Dry Well: 445.22 - stick up (~2.5') = 442.72 ft bgs - Depth to Bottom of Deep well: 493.79 - stick up (~2.5 ft) = 491.29 ft bgs
1240	Driller breaks for lunch - Lane goes to swap out water quality meter - using EA "Team 2" meter calibrated this morning
1330	Begin development - pull 1 st bailer from TD. - very silty w/ petroleum odor - slight sheen
1640	End Development for Day - purged 30 gallons from S3
1658	get water level post Bailing = 477.44 ft below top of well casing \rightarrow No change from development - pack up site / secure well & IDIW Drum
1721	Leave S3 - take Matt C back to Zia Landrum
1735	take equipment to BFF trailer & yard
1740	All off site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

ROLE: Geologist

DATE: 12-3-18

WEATHER: low Hds; clear sky

WELL ID: KAFB-106S1

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Gary Desselle</u>	EA - Site Health and Safety Office
<u>Joshua Messenger / Carlos Montoya</u>	EA - Geologists
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>James Due / Lance Sizmore</u>	Cascade - Driller's helpers

2. OPERATING EQUIPMENT see individual forms

JM

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- Met on site - H&S briefing
- Drilled to 436 ft bgs
- Installed casing to 436 ft bgs
- IDW: S1-1 (8.5 yd³); S1-2 (0.5 yd³)
- Visitors: NONE

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

- 0700 met on site - H&S briefing: discussed the weather; hydration/breaks, keeping warm, slips-trips - falls/ice + slippery surfaces + cold surfaces
- 0745 drillers continue to work on ram cylinders
- 0820 ram cylinder replaced - 0835 drillers remove wind break

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: SSH0

DATE: 12-4-18

WEATHER: Sunny, Cold 20°F

WELL ID: KAFB 100253

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Tyler Curley	EA - Site Manager/Supervisor
Tyler Curley / B. Bouchard	EA - Site Health and Safety Office

2. OPERATING EQUIPMENT

CME-75

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0700	Onsite

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	onsite, H&S
0730	Garage well DTW = 477.54
0745	Start development, will not take readings until 3rd boiler.

Reviewed by: _____

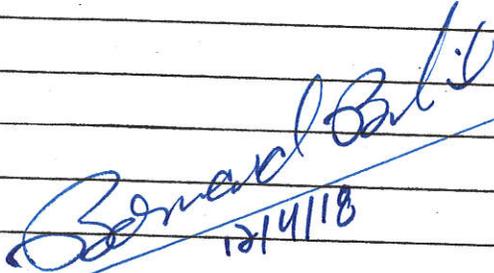
Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

4. WORK PERFORMED (Continued)

DATE: 12-4-18

09:07	B. Beckish onsite
10:10	Last boiler down well, will fish it out.
10:15	B. Beckish offsite.
10:36	Managed to fish boiler out of well.
10:40	Noticed filter pack in the bottom of the boiler, Matt is calling the office to discuss the issue. Shutting down for the time being.
11:10	Cascade offsite to Peralta to get well camera.
13:40	Cascade will not be onsite until ~ until ~ 1500, offsite.
15:00	B. Beckish ON SITE. MEET W/ M. CAW / B. NIOSKE. TAG BOTTOM OF WELL. DRYER TAGGER STICKING TO SIDE OF WELL. LOOK FOR CABLE TAGGER.
16:20	BOTTOM OF WELL TAGGED AT 437.8', WHERE FROM TOC. THIS IS WHERE BOTTOM SHOULD BE.
16:40	CLOSED UP RIG AND OFF SITE
 Bernard Beckish 12/4/18	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications above.

BERNARD BECKISH
 Name

Bernard Beckish
 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 12-4-18

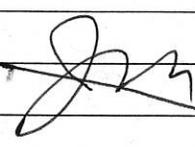
WEATHER: 40s; clear sky

WELL ID: 1KAFB-106S1

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Gary Desselte</u>	EA - Site Health and Safety Office
<u>Josha Messenger/Carlos Montoya</u>	<u>CEA - Geologists</u>
<u>Roger Rodriguez</u>	<u>Cascade - Lead Driller</u>
<u>James Due/Lance Sizemore</u>	<u>Cascade - Driller's Helpers</u>

2. OPERATING EQUIPMENT see individual forms

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Met on site - H&S briefing</u>
-	<u>Drilled to 469 ft bgs</u>
-	<u>Installed casing to 467 ft bgs</u>
-	<u>IDW: SI-1 (8.5 yd³); SI-2 (1 yd³)</u>
-	<u>VISITORS: NONE</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Met on site - 0725 H&S briefing: discussed weather; hydration slips - trips - falls</u>
<u>0905</u>	<u>Core run 436-446' out - 1000 Core run 446-449' out</u>
<u>1050</u>	<u>Core run 449-456' out - 1221 drillers on lunch - 1317 drillers off lunch</u>

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: SEHO

DATE: 12-5-18

WEATHER: 19°F, mostly cloudy, 74% humidity
barometer 30.32" ↑

WELL ID: KAFB-10653/KAFB-10655

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Lane Address</u>	EA - Site Health and Safety Office
<u>Matt Cain</u>	<u>Cascade-Developer</u>

2. OPERATING EQUIPMENT

<u>CME-85, VSI professional Plus water Quality Meter, Hach</u> <u>2100 Q turbidity meter</u>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

<u>H&S Brief</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Meet at KAFB-10653 - Matt C. prepares paperwork</u>
	<u>Lane A to BFT field trailer for EA vehicles</u>
	<u>equipment</u>
<u>0730</u>	<u>Rig up on hole again - call from Brian Nydeski</u>

DQCR Page 4 of 2 1/25

Reviewed by: _____ Initials: _____ Reviewed date: _____

DATE: 12-5-18

4. WORK PERFORMED (Continued)

	to Matt Cain said we aren't going to work on this well (S3) until he can be present - Lane calls Bernie B to can firm - Break down site to mobilize to KAFB-10655 in Bullhead Park
	- pick up 2 empty steel drums for development water
0911	- Drop drums & traffic control at KAFB-10655 - drop Cascade truck at Truman Yard - go back on base to get rig
0940	Back at S3 - Joshua Livingston stops to pick up Drum of Development water & transports it to Zier Park <90-Day yard - Drum is properly labeled & contains ~53 gallons of development water
0950	- secure traffic control & flagging around S3, warm rig head back to KAFB-10655 in Bullhead Park, Matt follows w/ Rig
1000	Arrive at S5 - // 1008 Matt Const. w/ Rig - set up visqueen & exclusion zone // 1049 Kate Lynnes stopped by outside exclusion zone to say hello & offered to be available if we needed anything today - Lane A. Notified Devonit & Bernie B. // 1057 Matt & Lane stop & secure vehicles to find a rest room - Nothing available in park - went inside VA hospital waiting room. // 1131 Return to site decom Winch line, assemble set & decom New 20ft stainless ^{steel} 2" boiler
	- Bump test YSI Professional Pro water quality meter:
	PH 7 = 6.75 1413 μ S/cm conductivity = 1031 μ S/cm
	PH 4 = 3.78 9L Not ^{Bump testing} calibrating to std's
	PH 10 = 9.97 - don't have new solutions

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications above.

Lane Address
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 2 of 5

Reviewed by: _____

Initials: _____

Reviewed date: _____

DATE: 12-5-18

4. WORK PERFORMED (Continued)

1200	Get total Depths on KATB 10655 Shallow Dry well = 438.7 ft btoc - ~ 11 ft ^(~ 0.4 bgs) ^{stick up} = 439.1 ft bgs Deep well = 487.7 ft btoc (~ 0.35 ft bgs) ^{stick up} = 488.05 ft bgs
1227	Depth to water in Deep well = 469.67 ft btoc = 470.02 ft bgs
1242	Go in well w/ 1st bailer - unable to get 20 ft bailer down all the way pull up bailer & fine shavings of PVC seen on top of bailer - call Bernie B.
1256	Pete Ferrari brings New YSI professional plus that he calibrated right before bringing it over - shortened bailer to a 10 ft bailer - it still won't go down - call Bernie B. - Matt C. calls Guy Hammen pulled bailer up & shavings on it also. No answer from Guy - Matt contacts Brian Nydoske, gets voice mail sent text. Lane got Bernie B's voice mail & texted photos & info - he is in a meeting & will call back - stand down to avoid damaging well until further direction is received - // 1309 - Brian N. calls Matt C.
1315	Bump test Yach # 2100Q turbidity meter 10 NTU = 9.34 20 NTU = 22.1 100 NTU = 99.9 800 NTU = 827
1320	Brian said to go w/ a 15 ft section & grind the L square bottom edge of bailer down so it doesn't impact PVC as well as sharp top edge of bailer.
1325	text Bernie B for permission to ^{Proceed} receive , he responded yes.

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

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 DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report -- Non-Construction

DATE: 12-5-18

4. WORK PERFORMED (Continued)

1330	Begin Grinding down top sharp edge of bailer // 1335, grind sharp bottom edge. - edges beveled
1350	5 ft bailer is still not reaching water with some thin PVC shavings on side of bailer - Lane A texted Bernie B - Matt C. call S. Brian N.
1415	The plan is to switch to using a PVC bailer, they will attach the bailer ends to it - Brian will bring up the PVC to use from the shop in Peralta, NM. - We will not have time to get into development today w/ making the bailer & having to pig dunn & move off site for night - waiting for Brian N to arrive w/ PVC to make bailer & run it in a trouble shoot.
1430	Lane to restroom at VA - Matt not working in SSTO absence
1459	Lane Returns - Matt Removes bailer ends from stainless steel Barrel of bailer
1507	Brian N. dropped off (4) for 5 ft schedule 40 - 2" PVC pieces for Bailers
1519	Bailer assembled as a 10 ft bailer - Run bailer in well to see if it will reach water
1532	water reached and whole 10 ft bailer full of water and sediment from bottom of well - well water is dark w/ strong odor
1530	Bernie B on site - 1545 Bernie B off site - Break down rig for night - // 1600 Brian N stopped by outside exclusion zone to check progress // 1610 Brian N leaves - Secure well, load IDW drums, remove plastic sheeting

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications above.

Lane Address
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 - 4 of 5

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report -- Non-Construction

DATE: 12-5-18

4. WORK PERFORMED (Continued)

- set up traffic barriers - move rig out -
Matt to swap rig for Cascade pickup truck
at Truman Yard
- Lane to EA BFF 21a Park Yard to put
Drum w/ 1.7 gal of Development water in 90-Day
yard on secondary containment pallets - Drum
is properly labeled "KAFB-10655-DM-1"
- Matt Cain helps unload drum onto pallets in
21a Park 90-Day yard - yard secured
1711 - Lane to BFF field trailer w/ trans & meters
- Complete paperwork
1730 Lane off site

12/5/18

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications above.

Lane Andrew
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 50/5

Reviewed by: _____

Initials: _____

Reviewed date: _____

ROLE: Geologist

Daily Quality Control Report - Non-Construction

DATE: 12-5-18

WEATHER: high 40s; clear sky

WELL ID: KAFB-106S1

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>Gary Desselle</u>	EA - Site Health and Safety Office
<u>Joshua Messenger / Carlos Montoya</u>	EA - Geologists
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>Lance Sizemore / James Due</u>	Cascade - Driller's helpers
2. OPERATING EQUIPMENT	
<u>see individual forms</u>	
<u>JRM</u>	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	<u>Met on site - H&S briefing</u>
-	<u>Drilled to 510 A bgs</u>
-	<u>Installed casing to 497 A bgs - removed casing to 380 P bgs</u>
-	<u>IDW onsite - S1-1 (8.5 yd³); S1-2 (1.5 yd³)</u>
-	<u>Visitors: NONE</u>
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0700</u>	<u>Met on site - 0723 H&S briefing: discussed weather, hydration, slips-tips-falls</u>
<u>0815</u>	<u>hole cleaned out - barrel temperature = -30°C 476-486'</u>
<u>0905</u>	<u>Coe run 469-476' out - 1035 Coe run 476-386'^{10m} out</u>

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: SSHO

DATE: 12-6-18

WEATHER: 31°F overcast, 54% humidity, slight breeze @ 9am
barometer 30.20" Hg

WELL ID: KAFB-10655

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Lore Andress</u>	EA - Site Health and Safety Office
<u>Matt Cain</u>	<u>Cascade - well development</u>

2. OPERATING EQUIPMENT

CME 85, VSI pro plus, each 2100 Q turbidity meters

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

	<u>H&S Brief</u>
	<u>Developed well KAFB-10655 w/ — gal removed</u>
	<u>FDW: Drums: — "KAFB-10655-DM-1" w/ 48 gallons of</u>
	<u>development water</u>
	<u>— "KAFB-10655-DM-2" w/ — gallons of</u>
	<u>development water</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Lane A. at BFF field trailer pick up meters & Transit</u>
	<u>- meet Matt Cain at <90-Day 21a Park Yard & pick up</u>
	<u>development drum "KAFB-10655-DM-1" to continue development</u>
	<u>- Matt to meet Bryan Nyloske at rig at Truman Yard</u>

DATE: 12-6-18

4. WORK PERFORMED (Continued)

	+ bring rig to Bullhead Park & KATB-10655
	- Lane A to Frumen Badge office to get Renewed KATB Badge
	- Meet at S5, set up rig on Vispene, get Depth to water: 469.65 ft top ^{below} top of casing
	- set up PVC bailer w/ locking 'o' ring / caribeaner
	Instead of a clavis - align bailer - 2" bailer x 20ft
0930	- Begin bailing - VSI Pro Plus Meter bump tested & calibrated a BFF trailer @ ~0745 this morning
	- Bump Test Hach 2100Q turbidity meter
	10 NTU = 11.1 MTU
	20 NTU = 21.0 MTU
	100 NTU = 100 NTU
	800 NTU = 817 NTU
	0942 - Get 1 st bailer full, take 1 st inhoff cone
	- strong petroleum odor
	Dark silty color
1018	stop bailing small shaving of PVC on top edge of bailer & in purge water. Contact Bernie & Bryan N. (Lane A & Matt C, respectively) // 1030 Bernie said go to a 10 ft bailer - remaining 10 ft off bailer
1035	Brian N. called - he said its not uncommon to have filings in a well - purged 20 gal so far, took 2 nd inhoff cone, switching to swabbing
1056	go in w/ tight fitting swab // 1057 Guy Hansman from Cascade called & said the small filing look ok - as long as there aren't ribbons we are ok & not damaging well.
1101	trip in w/ swab // swab till 1120, call Bernie, he is ok going back to the 20 ft bailer if Guy wasn't concerned
1125	- put 10 ft back on bailer for full 20ft bailer // 1220 Water Break & Lunch break // 1245 resume work // 1415 - one drum full w ~48 gallons

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications above.

Lane Address
 Name _____


 Signature _____

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 - Zaf

Reviewed by: _____

Initials: _____

Reviewed date: _____

20
140
260
229
400 - 402

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 12-6-18

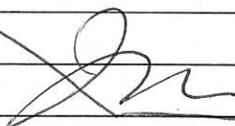
WEATHER: Partly Cloudy; mid 40s

WELL ID: KAFB-10651

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Gary Desselle</u>	EA - Site Health and Safety Office
<u>Joshua Messenger/Carlos Montoya</u>	EA - Geologists
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>James Due/Jane Sizemore</u>	Caswell - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

<u>Met on site - H&S Briefing</u>	

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Met on site - 0725 H&S Briefing: discussed weather, slips-trip-falls</u>
<u>0845</u>	<u>All casing tripped out - continued site clean up/core disposal</u>
<u>0925</u>	<u>Joshua M. off site to refuel reefer truck</u>

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report -- Non-Construction

ROLE: SSHO

DATE: 12/7/18

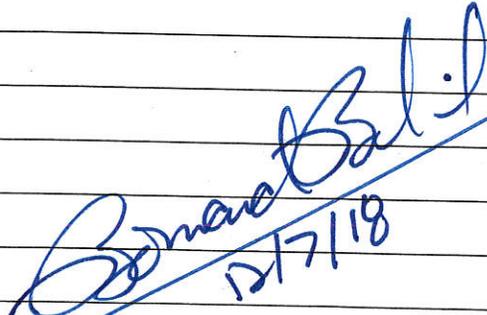
WEATHER: P. CLOUDY, COLD

WELL ID: KAFB 10653

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>B. BOCKLISCH</u>	EA - Site Health and Safety Office
<u>MATT CAIN</u>	<u>CDLP</u>
<u>BRYAN NIDOSIKE</u>	<u>CDLP</u>
2. OPERATING EQUIPMENT	
<u>CME 85 FARWELL DEVELOPMENT</u>	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
<u>0700</u>	<u>PICK UP BARRICADES / SET UP</u>
<u>0900</u>	<u>FISH FOR CLEWS - UNSUCCESSFUL. DECIDE TO SET</u>
	<u>TRUNG IN BOTTOM OF WELL DUE TO POSSIBLE</u>
	<u>CRACKED BOTTOM CAP</u>
<u><i>Edward Balil</i></u> <u>12/7/18</u>	
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0700</u>	<u>PICK UP BARRICADES FROM SS. SET UP OVER SS</u>
<u>0800</u>	<u>TGSM, FISH FOR CLEWS IN WELL</u>
<u>0840</u>	<u>CALIBRATE YSI: COND: 1413 LOT 8GF 1067. EXP: 6/19 READS 1408</u>
	<u>PH 7: LOT 7GF 282. EXP: 5/19 READS 6.89</u>

DATE: 12/7/18

4. WORK PERFORMED (Continued)

0900	CALIBRATE TURBIDITY METER W/FACTORY STANDARDS ATTEMPT TO REMOVE CLEVIS W/MAGNET UNSUCCESSFUL. DRINKER THINKS THERE IS TOO MUCH SEDIMENT AT BOTTOM OF WELL
0945	GO IN W/BAIKER. SOME FINE SEDIMENT OBSERVED. NO FILTER PACK SEEN
1030	RAN BAIKER INTO WELL AND PULLED UP 2 PIECES OF PVC. ONE PIECE IS A THREAD FROM THE BOTTOM CAP. DISCUSSED SITUATION W/BRYAN AND DEWON. BRYAN WILL HAVE A BUNG SENT OUT. WE WILL INSTALL BUNG IN BOTTOM OF WELL EARLY NEXT WEEK. HOLD OFF ON DEVELOPMENT FOR NOW.
11:00	PACK UP AND MOVE OFF OF S3, DROPPED RIG AT S4. DROPPED WATER W/DEVELOPMENT WATER AT COLLECTION YARD.
12:10	B. BOUWISCH OFF-SITE
 12/7/18	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

BERNARD BOUWISCH
Name


Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: GEO/SSHO

DATE: 12/10/18

WEATHER: COLD, CLEAR

WELL ID: KAFB10654

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
B. BOCKISCH	EA - Site Manager/Supervisor
M. MCLELLAN	EA - Site Health and Safety Office
MATT CAIN	T. REUER / CASCADE

2. OPERATING EQUIPMENT

CRANE 85 TO BE USED FOR WELL DEVELOPMENT

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

710	AT BFF TRAILER
0900	BEGIN BAILING
1421	FINISHED BAILING AT 86 GAL
1445	DRUMS LABELED
1623	SETTING UP ON KAFB 10652
1700	TAG WATER LEVEL AND TD
1710	OFFSITE

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0910	AT BFF TRAILER. PREPARE FOR DAY. CALIBRATE INSTRUMENTS
	CALIBRATE CONDUCTIVITY. READS 1380 US/CM. COND FLUID
	1413 US/CM - DIC LOT # 861067, EXP 6/19

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 12/10/18

4. WORK PERFORMED (Continued)	
	CALIBRATE PH 7-6.91 FOR 7.0 - OK - LOT# 76E282 EXP 5/19
	CALIBRATE TURBIDITY METER - 20 NTU READ 23.9 OK; 100 NTU READ 99.7 OK; 800 NTU READ 796 OK
0800	SET UP RIG ON KAFB-10654 FOR DEVELOPMENT
0829	472.45' N. SIDE OF CASING; 472.74' SIDE OF METAL BAR (MRP)
0840	TAG TO SIDE OF METAL BAR 492.60' (MRP)
0858	DRILLER DECONING BAILER
0928	NOT GETTING MUCH WATER IN BAILER (w/ 1.5 gal) SO WE ARE GOING TO SWAB THE WELL.
0945	START BAILING AGAIN
1200	BREAK FOR LUNCH
1230	BEGIN BAILING AGAIN
1421	FINISHED BAILING AT 86 GAL. PACKING UP AND MOVING TO KAFB-10652
1445	DRUMS LABELED, MATT WENT TO GET WATER.
1543	AT THE LAYDOWN YARD DECONING WELL DEV. MATERIALS. WAITING FOR PETE TO PICK UP DRUMS
1623	FINISHED DECONING/WINTERIZING STEAM CLEANER. SETTING UP ON KAFB 10652.
1700	TAG WATER LEVEL: 478.82' TAG TD: 496.50' BUTTON UP RIG AND WELL.
1710	OFFSITE

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

MIKE McVEY
Name


Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: SSHO

DATE: 12-11-18

WEATHER: 30°F, 68% humidity, partly cloudy, calm
00800 barometer: 30.27"

WELL ID: Zia Park Laydown
KAFB-106V2

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Lane Andrews	EA - Site Health and Safety Office
Joshua Messinger/Carlos Montoya	EA - Geologists
James C'ove/Lance Sizemore	Cascade - Driller helpers
Royce Rodriguez	Cascade - Lead Driller

2. OPERATING EQUIPMENT

Sonic Drill Rig, PID, Forklift, Sonic support box truck

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- H&S Brief
- Decan casing & core barrel, weld meane ridges/notches in Sonic core barrel bits
- collect Rinstate blank on decanned core barrel
- IDW at Zia Park Laydown Yard - 2 drums of Decan pad mud - 48 & 10 gallons, respectively

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0720 Arrive at BFF trailer - gather SSHO supplies/forms
 0745 Cascade on site at Zia Park Laydown - Rig going thru contractor gate
 0800 H&S Brief // 0815 Lance & James ("Chris") to get New tote of potable water for decan // 0841 - Lance & James

DQCR Page 4 of 2 - log 3

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 12-11-18

4. WORK PERFORMED (Continued)

	Return w/ water to Roger Rodriguez on site.
	-Decan pad has a lot of rain water, pump decan pad down into baker tank (~25% full) // 0920 having problems w/ pressure washes - // 0944 pressure washer still not functioning correctly - Roger said he will have to pull the valves out & see what the problem may be // 0950 problem resolved, begin pressure washing same drive casing - cleaned out decan pad solids into hopper - // 1140 finish decan & loading core barrels into box truck - clean decan pad // 1134 called in hot work to KAFB FACE to weld new ridges on sonic core bits. - transfer all decan pad mud from decan pad & hopper into two (2) 55-gallon steel drums: "V2 - decan pad mud - DM1" with ~48 gallons and "V2 - decan pad mud - DM2" with ~10 gallons Drums are on a wooden pallet on Visqueen on the southwest end of baker tank for decan water - baker tank is ~30% full. // 1210 finish welding
1220	Mobilize to BFF area & V2, Lane S. staying at site of welding to complete 30 min fire watch & will follow w/ forklift when complete.
1230	Dillers dropped box truck & trailer & break for lunch & head to Truman yard to pick up 2 core barrels
1245	core barrels loaded - securing load // 1250 head back to V2
1255	Lance backing ^{at BFF/V2} for lift - fire watch over
1258	Roger & Lance back w/ casing at V2 -

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 2 of 3

Reviewed by: _____

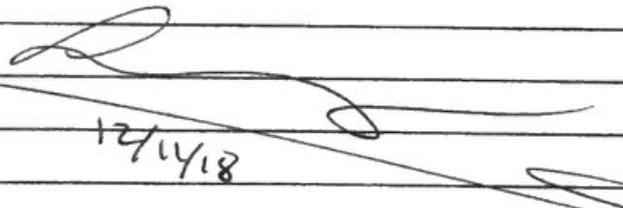
Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 12-11-18

4. WORK PERFORMED (Continued)

1305	Drillers break for Lunch
1305	Call FACC to call off firewatch.
1340	Cascade back from Lunch - set up on KAFB-106V2 - set up on hole - Label roll off "V1/V2-1" a 15yd hot hard-top roll off. It is ok to share waste in one roll off as holes are in close proximity -
1522	Set up Exclusion zone w/ traffic panels & flagging
1545	Collect RWSite blank on one (1) decanned core barrel "RB-V1-7"
1550	Bernie Beckush on site - discuss drilling of this well w/ Roger R - Bernie calls Bryan Nyduska to discuss
1615	Not enough light to drill today - pack up for drilling
1620	Lane A to Zia Laydon w/ Cascade to unload 10" casing
1620	Carlos M. & Joshua Messenger off site
1630	unloading 10" casing, Bernie B at Zia Laydon discusses drilling w/ Roger -
1645	Bernie off site // 1651 load 8" casing in Box truck
1710	Cascade off site - Lane to BFF trailer to Lock up
1730	Lane off site
 12/11/18	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andrew
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 3 of 3

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report -- Non-Construction

ROLE: SSHO

DATE: 12-11-18

WEATHER: Cold/Sunny

WELL ID: _____

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>Tyler Cutler</u>	EA - Site Health and Safety Office

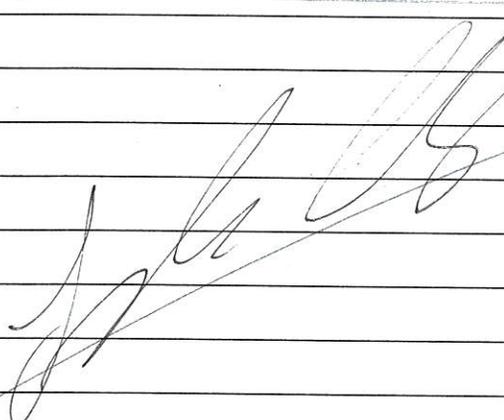
2. OPERATING EQUIPMENT	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
	<u>Survey wells 10652, 10653, 10654, 10655, and 10659 w/ GPS & theodolite</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0800</u>	<u>Onsite, H&S briefing</u>
<u>0905</u>	<u>Set up to Survey 10655 (GPS)</u>
	<u>Mesa offsite to pick up level, Mark will stay & continue shooting points</u>

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 12-11-18

4. WORK PERFORMED (Continued)	
0830	Survey 10654 (GPS)
0837	Survey 10653 (GPS)
0845	Survey 10659 (GPS)
0900	Have cascade rig down to allow S2 to be surveyed to S5
0905	Survey 10652 (GPS)
0910	Zero well 10652 w/ theodolite start loop on 106008
	Short loop w/ theodolite S2 → S9 → S4 → S3
	End loop on 106014
	Elevations did not match, complete loop back to 106008.
	Elevations match when looped back to 106008.
1030	Head to 10655 to zero w/ theodolite
	Start loop @ 106010
	End loop @ 106009
	Elevations match.
1110	offsite
 12-11-18	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Tyler Curley
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: Geo/SSH0

DATE: 12/11/18

WEATHER: COLD, CLEAR

WELL ID: KAFB 10652

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
B. BOEKISCH	EA - Site Manager/Supervisor
M. McVEY	EA - Site Health and Safety Office
MATT GAIN	DRILLER / CASCADE

2. OPERATING EQUIPMENT

<u>CME 85 TO BE USED TO DEVELOP WELLS</u>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0645	AT BFF TRAILER, CALIBRATE INSTRUMENTS
0750	ARRIVE AT WELL KAFB 10652, CONDUCT HAS MTG
0800	BEGIN SWABING WELL. WAIT ON SURVEY CREW.
0934	RETRIEVE FIRST DAILER.
1140	BREAK FOR LUNCH
1210	RESUME DEVELOPMENT
1427	DONE W/ DEVELOPMENT
1650	SET UP OVER WELL KAFB 10652 FOR DEVELOPMENT TOMORROW. SECURE RIG

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0645	AT BFF TRAILER. PREPARE FOR DAY, CALIBRATE INSTRUMENTS
	CALIBRATE YSI - CONDUCTIVITY ^{STANDARD 1413 MS/cm} READS
	READS 1487 - OK

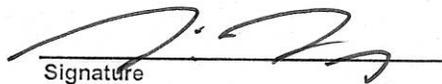
Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 12/11/18

4. WORK PERFORMED (Continued)	
	PH 7 STANDARD READS 6.82 - OK
	CAIBRATE TURBIDITY - NTU 20 READS 22.0 - OK
	NTU 100 READS 105 - OK NTU 800 READS 825 - OK
0750	ARRIVE AT WELL, CONDUCT H&S MTG.
0800	BEGIN SWABING WELL
0846	MADE ONE GOOD PASS W/ THE SWAB TO TD, BUT NOW CAN'T GET THE SWAB PAST TOP OF WATER. WILL CUT THE RUBBER ON THE BOTTOM OF THE ROD AND TRY AGAIN. WAIT ON SURVEYORS.
0926	COULDN'T GET THE SWAB DOWN. WILL GO IN W/ THE BAILER.
0934	RETRIEVE FIRST BAILER, NAPL SHEEN ON SURFACE OF WATER IN DRUM - STRONG ODOR.
1140	BREAK FOR LUNCH. 50 GALLONS BAILED.
1210	BEGIN BAILING
1427	FINISHED W/ DEVELOPMENT. 95 GALLONS BAILED.
	MATT BREAKING DOWN RIG, WILL GO GET WATER TO DECON, THEN WILL SET UP ON KAEB 10659 FOR TOMORROW.
1441	LABELED DRUMS. CALL PETE FOR PICKUP.
1650	SET UP OVER KAEB 10659. WILL SECURE RIG AND TOOLS FOR THE NIGHT.
1730	CLOSEOUT, UNLOAD VAN, EMAIL FORMS TO BERNIE, OFFSITE

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

MIKE McVEY
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: SSHO

DATE: 12-12-18

WEATHER: 25°F, clear, sunny, calm, humidity 81%, @ 0745 barometer 30.10" →

WELL ID: KAFB-106V2

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Beckish	EA - Site Manager/Supervisor
Lane Andress	EA - Site Health and Safety Office
Joshua Messenger / Carlos Mantaya	EA - Geologists
Roger Rodriguez	Cascade - Lead Driller
James "Chris" Dye	Cascade - Drillers Helper
Lance Sizemore	Cascade - " "

2. OPERATING EQUIPMENT

Sonic Drill Rig, support truck, forklift, PID

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

	<u>H&S Brief</u>
	<u>DRILLED TO 110'</u>
	<u>LOGGED TO 110'</u>
	<u>NO SDS CUTTINGS IN BIN KAFB 106V1/V2</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>met on site at trailer out farms to PID</u> ^{Carlos M} _{Lane A & Josh M}
<u>0705</u>	<u>Head over Zia Park Lay down meet Bernie B, & Cascade - Determine course of action on drilling - Bernie w/ Brian N & we will drill as we have been</u>

DATE: 12-12-18

4. WORK PERFORMED (Continued)	
	and the ARCH Rig will return and over-ream -
0725	- Joshua M & Carlos M to KAFB-106V2 to set up
0730	Bernie B off site, Roger R to warm up Rig at V2 - Chris & Lance continue loading 8" casing into box truck
0753	Mobilize w/ Box truck for Sonic Rig to forklift to V2 in the BFF - set up to drill // ~0820 Begin to drill
0850	1 st run of core bagged & processed
1019	Drillers break for water @ 51 ft bgs // 1025 Resume Drilling - @ ~45 ft began to smell odors (petroleum) from cores
1105	PID's in box truck core processing stations range from 3.9 up to 86.4 ppm w/ fans on - Don full face respirators - check seals for suction on Carlos & Joshua M. - seals good for Carlos & good for Joshua M w/ minimal leakage around face - tighten straps - seal good - check all breathing zones/work stations - see PID env. monitoring record form - full face respirators being worn in box truck while processing core. - wind now 5 mph ESE - Drillers above & upwind all core processing down wind
1158	Drilled to 81' drillers break to bring equipment ^{on trailer} from Trumann yard & unload at Zia Park yard - - Lane & Lance to Zia Park yard - Lane stops for more monitoring forms & buy water

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andrew
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

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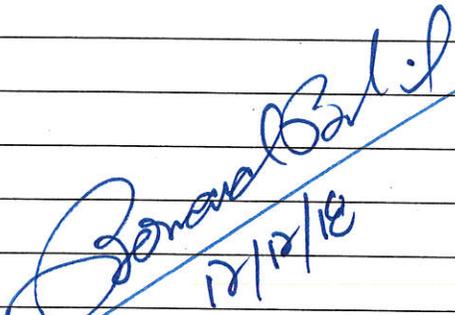
Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 12-12-18

4. WORK PERFORMED (Continued)	
1226	Arrive at Zia Park Laydown - Lance waiting for Roger & Chris // 1232 Roger & Chris arrive w/ trailer w/ 10 (ten) 10' sections of 10" casing - unload & stack // 1242 drillers break for lunch & to drop trailer back off at Trumman Yard
1337	Drillers back on site // 1340 Lane A back on site - drillers empty hopper into roll off "V1/V2-1" ~ 1 cubic yard.
1355	Resume drilling // 1410 take PID readings around site
1433	1430 1430 ¹⁴³⁰ NOW SITE TO TAKE OVER SS10 FOR LANE
1523	RAW BENZENE 1523 ^{1523/1410} RAE TUBE. NO BENZENE INDICATED IN BOX TRUCK
1715	DRAINED TO 110'. OFF SITE
 Donald Basil 12/12/18	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 301

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

ROLE: GEO/SSH

DATE: 12/12/18

WEATHER: COLD, CLEAR

WELL ID: KAFB 10659

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
B. BOEKISCH	EA - Site Manager/Supervisor
M. McVEY	EA - Site Health and Safety Office
MATT CAIN	DRILLER/CASCADE

2. OPERATING EQUIPMENT

<u>CMS 85 TO BE USED FOR WELL DEVELOPMENT</u>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0700	AT BEF TRAILER, CALIBRATE INSTRUMENTS
0745	CONDUCT DAILY H&S MTS
0845	BEGIN BAILING
1210	BREAK FOR LUNCH
1346	FINISHED DEVELOPING WELL. WILL DECON DOWNHOLE TOOLS AND SETUP ON KAFB 10653
1548	SETTING UP AT KAFB 10653
1645	OFFSITE

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	AT BEF TRAILER. PREPARE FOR DAY, CALIBRATE INSTRUMENTS
	CALIBRATE VSI - COND. STANDARD 1413 MS/CM READS 1369 MS/CM - OK (LOT # 86F1067, EXP 6/19)

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 12/12/18

4. WORK PERFORMED (Continued)	
	TURBIDITY METER - 20 NTU STANDARD READS 18.3
	CALIBRATION VERIFICATION PASSED
	YSI - PH 7 READS 6.9 - OK (LOT# 76E282, EXP 5/19)
0745	CONDUCT DAILY HHS MTG., RIG UP
0805	DTW 472.26'; TD 489.25' (MRP)
0830	BEGIN SWABBING WELL
0845	FINISHED SWABBING, WILL BEGIN BAILING - CHANGING OUT SWAB W/ BAILER
0906	RETRIEVE FIRST BAILER
0934	15 GALLONS BAILED. NAPL SHEEN ON SURFACE OF WATER IN THE DRUM.
1210	BREAK FOR LUNCH - 68 GALLONS BAILED
1346	FINISHED DEVELOPMENT - 100 GALLONS BAILED
	WILL BREAK DOWN RIG, DECON BAILER AND SWAB AND THEN SET THE RIG UP ON KAFB 106 53 FOR DEVELOPMENT TOMORROW.
1548	SETTING UP RIG AT KAFB 106 53, FLAGGING AROUND RIG.
1630	BACK AT BEE TRAILER. FINISH PAPERWORK.
1645	LEAVE SITE FOR DAY.

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

MIKE McVEY
Name


Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

ROLE: SSH0 Daily Quality Control Report - Non-Construction

DATE: 12-13-18

WEATHER: 30°F, / 32°F, 36% humidity, wind 8mph WELL ID: KAFB-106V2
 @0715 @0948 - clear, sunny barometer 30.31 ↑

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bernie Backus	EA - Site Manager/Supervisor
Lane Adress	EA - Site Health and Safety Office
Joshua Messinger / Carlos Munoz	EA - Geologists
Roger Rodriguez	Cascade - Lead Driller
James 'Chris' Dre / Lane Stenore	Cascade Driller Helpers

2. OPERATING EQUIPMENT

Sonic Rig & support box truck, PID, refrigerated truck & box truck for processing samples

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H & S Brief
 Drilled to 198 ft bgs

IDW on site in roll off "V1/V2-1": 2 yds³

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Carlos M & Joshua M on site - 0710 Lane A on site
0700	Cascade on site - warm up Rig
0715	H & S Brief - discuss vapors, PPE & that anyone can don their respirator if they want to even if action

Reviewed by: _____

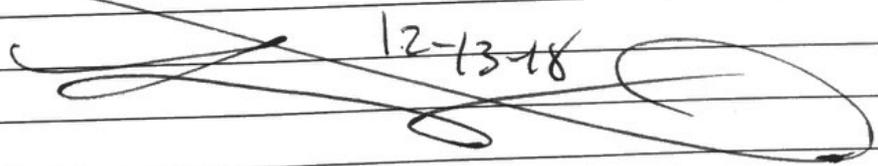
Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 12-13-18

4. WORK PERFORMED (Continued)

	levels are not reached/sustained - // set up to drill	
0730-	Bernie Rocksch on site ~ 0750 Bernie to office	
0900	- NAPL blebs seen in 118'-120' core bag	
0915	Drillers take water break @ 130 ft bgs // 0920	Resume drilling
1128	Bryan Nydoste & Shawn Cain from Cascade on site - Looking at Sink Rig w/ Roger R.	
1158	Bryan N & Shawn C off site	
1216	Drillers break for lunch - @ 170 ft bgs	
1311	Drillers back from lunch - Resume drilling	
~1400	Drillers take quick water break	
	- Joshua Livingston collects soil samples // 1345 - 1415	colos help josh L w/ sample shipping
1444	Water break - @ 186 ft bgs // 1448 break over	
1625	Last run of day - drilled to 198 ft bgs	
	- empty hopper into roll off "V1/V2-1" - a total of 2 cy in roll off - secure roll off	
	secure site // 1650 Joshua M. takes equipment to BFF trailer	
1655-	Cascade performs fork lift maintenance & leaving site	
1700	Joshua M. off site	
1710	Lane A off site	
		

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
Name


Signature

EA Engineering, Science and Technology Inc., PBC

2012 2013
DQCR Page 2 of 2
St

Reviewed by: _____

Initials: _____

Reviewed date: _____

ROLE: GEO/SSMO

DATE: 12/13/18

WEATHER: CLEAR, COLD

WELL ID: KAFB 10653

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
B. BOCKISCH / M. McVEY	EA - Site Health and Safety Office
B. NYDOSIKE	CASCADE
M. CAEN	CASCADE
S. CAEN	CASCADE

2. OPERATING EQUIPMENT

CME-8S USED FOR WELL DEVELOPMENT

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

1000	B. BOCKISCH ON-SITE TO SET BUNG IN BOTTOM OF WELL KAFB 10653
1115	B. BOCKISCH OFF SITE
1245	M. McVEY ON-SITE FOR WELL DEVELOPMENT
1636	FINISHED DEVELOPMENT, BREAKING RIG DOWN AND MOVE TO LAY DOWN YARD
1730	M. McVEY OFF SITE

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

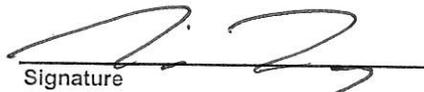
10:00	ON SITE TO SET BUNG IN BOTTOM OF WELL TO SEAL BROKEN BOTTOM CAP. TAGGED BOTTOM OF WELL: 493.4' FROM BTC. BUNG/PLUG IS 4.5" HIGH
10:28	DROPPED BUNG IN WELL AND CHASED W/ 10' PIECE

DATE: 10/13/18

4. WORK PERFORMED (Continued)	
	OF 1" PIPE
10:50	TAG FOR PWG. TAG @ 493.1 FE BTOL
10:56	ADD ABOUT 1 CUP OF #60 SAND AND CHASED W/ 5 BOTTLES OF DRINKING WATER.
11:15	OFF SITE
1245	M. McVEY AT BFF TRAILER CALIBRATE INSTRUMENTS
	YSI PRO - COND. STANDARD 1413 $\mu\text{S}/\text{cm}$, READS 1339 $\mu\text{S}/\text{cm}$ - OK
	PH BUFFER SOLUTION 7, READS 6.87 - OK
	TURBIDITY METER - 20 NTU STANDARD, READS 18.4 NTU - CALIBRATION VERIFICATION PASSED
1350	BEGIN BAILING
1636	FINISHED BAILING, LABELED DRUM, BREAKING RIG DOWN.
1645	PETE PICKED UP DRUM.
1657	PICKING UP ALL TRAFFIC CONTROL AND FLAGGING AT KAFB 10653. WILL DROP OFF AT BFF YARD, TAKING RIG TO LAY DOWN YARD.
1730	UNLOADED TRAFFIC CONTROL AT BFF YARD, FINISHED PAPERWORK. M. McVEY OFF SITE.

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

MIKE McVEY
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: SSHO

DATE: 12-13-18 ~~12-14-18~~

WEATHER: 22°F, 65% humidity, sunny, clear, calm

WELL ID: KAFB-10612

0735

Bar: 30.47" ↑

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Backisch	EA - Site Manager/Supervisor
Lane Adress	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Roger Rodriguez	Cascade - Lead Driller
James'Chris'Due / Lance Sitzmire	Cascade - Drillers Helpers

2. OPERATING EQUIPMENT

Sonic Drill Rig & Support Box-truck, forklift, PID

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H&S Brief
Drilled to 275 ft bgs

FDW: soil in roll-off "V1/V2-1": 3 yd³

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 meet on site // H & S Brief // Warm up rig / equipment
0744 Begin Drilling // 0800 First core up.
0805 Bernie back on site w dry & wet ice for core barrels
0818 Cascade sends Lance to get water for drinking // 0840 Lance back

DQCR Page ~~4 of 2~~

1 of 2

Reviewed by: _____

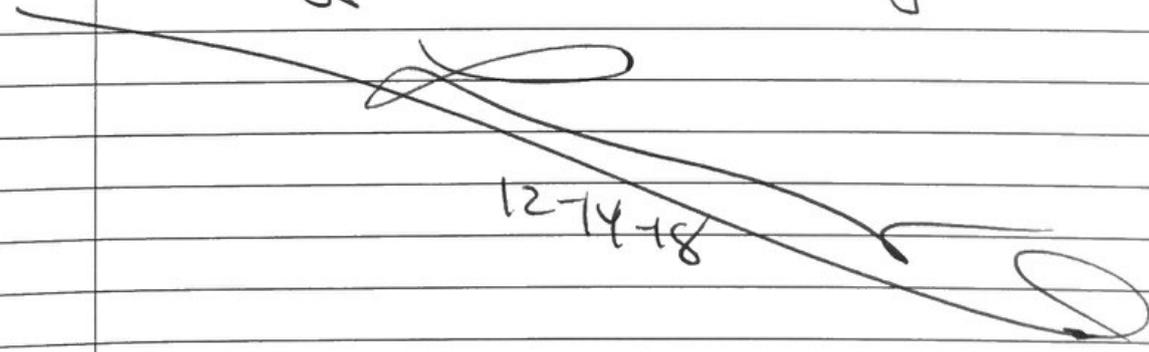
Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
 Daily Quality Control Report - Non-Construction

DATE: 12-14-18

4. WORK PERFORMED (Continued)

	- Bernie to office // 1142 Bernie on site no 55110 -
1145	Lane off site
1220	DINERS OFF SITE FOR LUNCH
1250	DINERS BACK FROM LUNCH // 1421 Lane back on site
1330	Joshua Livingston on site to collect/ship samples
1450	Joshua L off site to pack samples for shipping
1626	Finish drilling KAFB-106V2 - TD = # 275 ft logs
1630	Empty hopper into roll off "V1/V2-1". total in roll off is (3) ^{three} cubic yards
	- Bernie talked to Devon J - want to drill deeper to try to get out of clay - ~300ft Max
	- collect sample for VOCs, EOB, TPH @ 470'
1640	Cascade off site // Bernie Bockisch ¹⁷⁶⁰ off site
1700	head to BMT trailer to pack samples for shipping // 1752 collect & packed w/ sample & duplicate - Joshua M off site to FedEx
	- Scan paperwork
1800	Lane A off site - lock trailer & gate
 12-14-18	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: SSHU

DATE: 12-15-18

@ 0700 WEATHER: 25°F, 63% humidity, slight breeze - calm
barometer 30.37"↑

WELL ID: KAFB-106V2

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bernie Backus	EA - Site Manager/Supervisor
Lane Andress	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Roger Rodriguez	Cascade Lead Driller
Lane Sitzman / Jamaric Dore	Cascade Driller helpers
2. OPERATING EQUIPMENT	
SONIC Rig & support box truck - forklift - PID	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
0730	H&S Brief
-	Drill KAFB-106V2 to total depth @ 287 ft bgs
-	IDW: 3 ^{yd} of soil in roll off "V1/V2-1" - emptied V2 core bags into roll off "V1/V2-1" total IDW on site 7 yards soil in roll off "V1/V2-1"
-	decon core barrels & casing, collect onsite blank sample
-	Set up to drill on KAFB-106V1
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0700	met on site - warm up equipment
0730	H&S Brief // 0739 resume drilling operations
0808	- 1 st core up - 275' - 280'
0900	Bernie Backus on site

DQCR Page 1 of 2 - 1 of 3

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 12-15-18

4. WORK PERFORMED (Continued)	
0908	- pull up core to 287' - Bernie discusses w/ Devond on phone - we are at total Depth @ 287 ft bgs - trip out casing, continue logging core - collect sample for VOC's, EOB, TPH @ total depth
1022	Empty hoppers into roll off "V1/V2-1" a total of 3.3 cu y in roll off & sewer roll off.
	- Mast down on rig - break down site, put 4'x4' steel plate over hole for V2 // set upon V1 -
1105	Mast up platform set up // 123 head to Zia Fork lay down yard for decon // clean out sediment from decon pad & place in labelled 55-gallon drum site - ~18 gallons in drum "V2 decon pad mud-DM2"
1141	call in Hot work w/ permits to weld ribs & ridges on Sank bits again.
~1205	- Begin welding // unload casing from box truck & stage for decon
1225	welding complete, fire watch started
1232	begin decon w/ core barrels // 1239 ¹²³⁹ fire rillers Break for Lunch
1250	call KAFB FACC & let them know we are done w/ hot work & fire watch - Lane to get sampling supplies for collecting rinse blank sample - Bernie emptying old core into "V1/V2-1" roll off
1323	help w/ unloading old core boxes & getting Newtars - head back to Zia fork lay down for decon. -
1352	Resume decon of Sank casing // 1514 covered PVC well casing stored at site w/ black tarp - Mobilize Back to V1 as decon is complete & box truck re-loaded // 1550 Bernie R, off site
1551	Setting up at KAFB-106V1

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 2 of 3

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report -- Non-Construction

DATE: 12/15/18

4. WORK PERFORMED (Continued)

1545 collect rinsate blank "RB-VI-151218-01" after
 decan from V2 before drilling V1.
 - set up trucks around rig & core processing table,
 refrigerator truck stands, etc. - secure Box &
 Reefer truck

1612 Joshua Messenger off site - Cascade doing
 horse keeping & setting up

1640 - secure site boundary flagging

1645 secure Service Box truck for night

1650 Cascade off site.
 - take rinsate sample to fridge in GWTS
 trailer

1700 Lane A. off site

[Large handwritten signature and date 12-15-18 across the bottom of the work performed section]

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 3 of 3

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: SSHG

DATE: 12-16-18

WEATHER: 27°F, 59% humidity, calm, partly cloudy
0700 bar: 30.35" →

WELL ID: KAFB-V1

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Lane Anderson</u>	EA - Site Health and Safety Office
<u>Joshua Messinger / Curtis Lander</u>	EA - Geologists
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>James'Chris'Duc / Lane Sizmore</u>	Cascade - Drillers helpers

2. OPERATING EQUIPMENT

Sumc Rig & support box truck, forklift, PID

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H&S Brief
Drilled to 120 ft bgs

IDW: in roll off "V1/V2-1" 8.25 yds³ of soil

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 H&S Brief meet on site - ^{warm up equipment} Curtis L goes to get
Dry ice to keep core barrels cold // 0715 Curtis back on site

0720 H&S Brief - // 0749 - 1st core barrel in hole

0811 Roger tells Lane that the hy dro knife tube was not

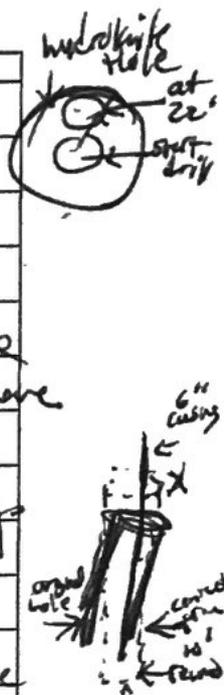
DQCR Page 4 of 2 1 of 2

Reviewed by: _____ Initials: _____ Reviewed date: _____

DATE: 12-16-18

4. WORK PERFORMED (Continued)

	have vertical & had an angle - its keeping his bit/casing out & it is causing the clamps to score the outside of casing - tower down to move rig a few inches so that casing does not rub jaws - staying within hydro knife hole as his casing is vertical, just moving rig to reduce/remove pressure of jaws casing -
	*Note - there is a strong petroleum odor in cuttings 16-22 ft bgs - but a different odor than at V2
0830	Resume drilling
1014	@ 62 ft - casing is falling back due to crooked hole Roger said - he added a 10ft section of casing to remain stable to keep hole straight - so his casing is not hitting side & pushed off center - stayed w/in Hydro knife hole - went ~ 10 ft bgs w/ over reamed hole
1028	Resume drilling // 1148 Brian B calls to check in -
1158	Drillers broke a toggle switch on rig - going to NAPA for a new switch and break for lunch -
1324	Drillers back - replacing switch // 1340 Resume drilling.
1506	@ 106 ft bgs - empty hopper (full) into roll off "V1/V2" - "
1620	core barrel is stuck @ ~120 ft bgs - can't get it free -
~1615	- stopped drilling to assess - 1622 - adding another casing - still can't get it unstuck - pulled up casing it loosened it // 1640 trip out cleanout run & pack up site for night - empty hopper into roll off "V1/V2-1" - total of 8.25 yds ³ in roll off
1700	Curtis L. off site / Joshua M. off site / 1705 Cascade off site



5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Love Address
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

1710 Case A off site
12/16/18
[Signature]
Searched

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: SSHO

DATE: 12-17-18

WEATHER: 31°F, humidity 52%, wind 3mph N
0760 partly cloudy, bar: 30.271

WELL ID: KAFB-106V1

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Bockner	EA - Site Manager/Supervisor
Lane Andrews	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Roger Rodriguez	Cascade - Lead driller
James C. Dore/Lane Swanson	Cascade - Drillers helpers

2. OPERATING EQUIPMENT

Service drilling & support truck - forklift, PID

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- H & S Brief
- Drilled to 166 ft bgs
- A different odor was detected in cuttings, headache reported from driller - stop work, assess, implement engineering controls & increased monitoring of breathing zones

SDW: soil in roll off "V1/V2-1" = 9.25 whic yaels

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 Meet on site - warm up equipment
H & S Brief
0755 resume drilling activities // 0833 clean out runs complete trip in core barrel
0846 first core Sp 120-126 ft bgs

DQCR Page ~~1 of 2~~ 1 of 4

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 12/17/18

4. WORK PERFORMED (Continued)	
0931	Drillers take water break
0940	Lane to get another PID from GWTS trailer for H&S monitoring - see PID ^{Environmental} Monitoring form
1015	Lane Returns to site - pulling another run of core: 140-146 ft bgs - Roger asks Lane to check PID levels as in Breathing zone on rig platform as bagging & cleaning out from last Run gave him a headache - Breathing zone ~1.5ppm, reading above hopper w/ floor hatch open ~30-50 ppm when disturbing cuttings w/ a shovel. There is a strong odor that is different than previously encountered - petroleum or other - It is possible there are contaminants that the PID isn't picking up (solvents) that may be there - and recommends using full face respirators w/ VOC cartridges
1020	Cascade cleaning their ^{full face} respirators - they have new cartridge packages: VOC/ACID/P100 filters expire 9/2022 - Lance S does not have the same model he was fit tested in - Roger & James 'Chris' get suction when blocking air inlets, Lance is not - - Roger calls Bryan Nydoske // 1051 Bryan N said not to proceed w/ drilling until he calls back - he is checking w/ their H&S. - Bernice to BFF trailer for more VOC cartridges for EA personnel
1059	Lane shows Lance a copy of his respirator fit test so he knows which model he was tested in & recommended taking a photo of it so he has it

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 *2014*

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 12/17/18

4. WORK PERFORMED (Continued)	
1125	Bernie back on site - he spoke w/ Bryan N of Cascade - Bryan is still waiting to talk to their H&S people ↳ if they upgrade to level C Tyvek is required then, however there is not a contact hazard here ↳ Bryan wants to try engineering controls first he is bringing a large fan to the proper respirator for Lance - Bernie is trying to get a PID w/ an 11-Fev Lamp Locally & waiting on some calls back
1135	- Break for an early lunch
1204	Bryan Nydake on site w/ tyvek, respirator, & a 4-gas meter, & a fan - All review APP
1340	Devon Jerome emails pertinent information from RFI - analytical results & report write up from historical investigations & results where we are working - solvents were NOT shown in the results - VOCs remain petroleum related
1340	Bernie Backish takes a Dräger tube reading for Benzene - Result is 0.0 ppmv. - H&S discussion with Cascade & EA - plan of action is to use a large fan on the drill platform up wind of hopper & hole & blow vapors downwind - ^{one} PID of the PIDs will be placed in breathing zone of driller for continuous monitoring - SSHO will take readings w/ PID in Breathing zone of personnel loading core bags & clean outs

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lance Andrews
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 *3 of 4*

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 12/17/18

4. WORK PERFORMED (Continued)	
	of core barrels. Moved EA refrigerated truck and box truck & core temp/boxing station to the South Side of Rig which is up wind of rig/hopper
	- Reset traffic control
	- If PID readings are > 5ppm in breathing zones respirators will be worn
	- Also, Drillers will wear Nitrile gloves under their work gloves to minimize any dermal contact
1505	Restart Rig, start fan, set PID on rig controls in Rogers Breathing Zone - Cascade PPE set out on a portable table to be at hand if necessary - // 1530 Resume Drilling
1545	collecting core in bags - check PIDs in breathing zones while collecting core - 0.8 ppm max, PID on drill rig 2.5 ppm a peak of 3.4 ppm for a brief second while clearing at - PID beneath floor hatch while clearing at core barrel - 33.8 ppm // 1553 - PID in drillers breathing zone fluctuates w/ readings of up to 23 ppm for 45 seconds max - Rogers said it does the once on the run in a once on run at // one hit on rig PID of 750 ppm, then came down again - wind has shifted and vapors from back of refrigerated truck is suspected
1655	pull up last core of night - 160-166 ft bags - empty hopper to roll off V1/V2 - 1" ~ 1 yd for a total of 9.25 yds
1715	Bernie & Cascade off site // 1720 Joshua M off site
1725	Love A off site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Love Address
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 4 of 4

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: SSH0

DATE: 12-18-18

WEATHER: 41° F, overcast, 49% humidity, wind 2 mph NW

WELL ID: KAFB-10GVZ

0820 bar: 30.02 ↑

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Bickusch	EA - Site Manager/Supervisor
Gene Ambress	EA - Site Health and Safety Office
Toshua Messinger	EA - Geologist
Roger Rodriguez	Cascade - Driller
Gene Sitzmore	Cascade Drillers Helper
James C' Dye	Cascade - Drillers Helper

2. OPERATING EQUIPMENT

Some Reg, support Box truck, forklift, PIDS

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H&S Brief

- Drilled to 230 ft bgs

- worked in level C most of day due to high VOC readings -> 5 ppm sustained

- FDW in roll off "V1/V2-1" - 1/2 cubic yards

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 meet on site/warm up equipment
H&S Brief -> wind is from N, it should be better for drillers, PWD placed on reg control panel in drillers breathing zone

DQCR Page ¹¹ 2 of 5

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report -- Non-Construction

DATE: 12-18-18

4. WORK PERFORMED (Continued)	
0815	Tripping out - Drillers ask to double check VOCs - Readings < 5 ppm (up to 78) sustained at Drillers control panel - ^{Breathing zone} vapors at opening of casing in hole 230 ppm - move fan to blow vapors from away from Breathing zone - Vapors still high - Roger calls Bryan Nudoste - Cascade dons Level C, full face respirators and tyrek suits
0830	Bernie Backush on site.
0839	Resume tripping out in Level C
0854	1 st core up // 0925 Drillers take water Break
0922	Kyllian Robinson & Stephen Bobby on site to help dump unneeded core from V2 into hopper "v1/v2-1" - Stephen does not have spectacle inserts for full face mask - he can not work in the exclusion zone - Stephen to BFF trailer @ 1000 - Kyllian & Bernie B unload core from Refrigerated truck to pickup truck for transport to hopper a couple 100 yards away
0934	whole last run was below 5 ppm w/ most un-sustained peaks up to 10 ppm - trying next run w/ out fac masks
0947	performed bagging of core & cleaning out & removed < 5 ppm VOC's w/ PID's - wind is now 9 mph NW
1013	Last run had a few peaks up to 10.9 ppm, nothing sustained for a minute or two - Roger ^{and crew} comfortable not donning respirators at this point - wind increased to 10 mph E
1028	Clon O'Malley, EA on site to take LEL measurement on vapors coming out of hole
1037	Clean out run - Drillers take water break - check for

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Low Address
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 5

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 12-18-18

4. WORK PERFORMED (Continued)	
	VOC's & LEL readings w/ Elon - VOC's 11 ppm LEL reading 0.0% at well head & 0% LEL & 5.7 ppm over hopper/cuttings
1044	Resume Drilling - // 1049 Elon & Kylan w/ site & Brine B off site
1111	Lost clean at run &illers PID remained 75 ppm for entire run ~4.5 - 28.5 ppm breathing zone of Drillers helpers < 5 ppm w/ one spike of 55 ppm (less than a few seconds) - - put geotech meter & w/illers & A meter side by side at Drillers monitoring station - they w/ within 8-10 ppm of each other - Lane A talks w/ Drillers, if vapors rise again they will don respirators
1118	Trip Back in hole -
1130	Drillers pushed top of casing down about 8' & VOC readings dropped from 6.0 ppm to 0.0 ppm -
1131	- taking a water break // 1138 Resume drilling - wind 9 mph W
1155	Last run 196-200 ft had readings up to 23 ppm at Drillers platform & up to 13 ppm for Drillers on platform - readings w/ > 5 ppm were sustained for up to 30 seconds for Driller & up to 3 seconds for Drillers helpers on platform
1157	Empty hopper & trip back in hole
1203	Drillers break for lunch & to get fuel for generator that runs fan
1300	Drillers back from lunch - fuel generator - Since the Drillers controls area is the area

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andrew
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 3 of 5

Reviewed by: _____

Initials: _____

Reviewed date: _____

DATE: 12-18-18

4. WORK PERFORMED (Continued)

	with the highest PID readings - Roger R is going to wear Level C - full face respirator w/ appropriate cartridges (P100/VOC/Acid) and a tyvek suit (per Cascade H&S requirements) - helpers are NOT
1008	Resume Drilling activities - check breathing zones and drill platform where Driller helpers are working. Readings are 0.5 up to 14 ppm with periods of >5 ppm up to 30 seconds - wind is 11 mph NNE. Levels on platform area
	- Lane A spoke w/ Lance & Chris (James 'C' Dye) and they are comfortable not wearing a respirator with the wind -
	- levels near Driller are sustained >5 ppm up to 22 ppm - the mast blocks the wind and he is in a corner next to the hole, mast, and Driller's controls area // 1315 Joshua Livingston on site to sample soils
1344	PID by Driller hit a Maximum level of 120 ppm, stop work to discuss - entire Cascade crew goes into Level C to be on the safe side // 1348 Resume Drilling. Lance using PID to monitor breathing zone continuously while tripping out -
1414	- Drillers take break - Roger cleans mask, shield // 1418 Resume Drilling
1520	pull up #5 - 215-220 ft run - highest PID at Driller's station = 139 ppm - All Cascade crew are in level C
1525	- Drillers take water Break // 1530 Resume Drilling
1426	Drill to 230 ft & pull last run of core for day

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lance Andrews
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 4 of 5

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 12-18-18

4. WORK PERFORMED (Continued)

1645 - Drillers take a water break // trip in hole
Bernie B on site - Joshua M discard un-needed
logged core in "V1/V2-1" roll off
- Shut down rig for night
1703 Empty hopper into Roll off V1/V2-1
1705 Joshua M & Bernie B off site - secure site
- Roll off 'V1/V2-1' has approx 11 yds in it
1715 Cascade off site -
Lane make's sure site is secure
take equipment/meters to BFF field trailer
for charging - scan paperwork
1725 Lane off site

12/18/18

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 5 of 5

Reviewed by: _____

Initials: _____

Reviewed date: _____

ROLE: SSH0

DATE: 12-19-18 12/20/18

WEATHER: 30°F, clear, sunny, 62% humidity
wind 2 mph SE, barometer 31.31 →

WELL ID: KAFB-106V1 / Zia Park
Low, Low Yield

1. ONSITE PERSONNEL (Including subcontractors and government employees)

Name	Organization
Bernie Backisch	EA - Site Manager/Supervisor
Lane Address	EA - Site Health and Safety Office
Carlos Montoya	EA - Geologist
Roger Rodriguez	Cascade Lead Driller
James C'Doe/Lance Sizemore	Cascade Drillers helpers

2. OPERATING EQUIPMENT

Pick up truck, trailer, forklift, pressure washer, some support box truck

3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- HAS Brev
- Demob from KAFB-106V1 secure well w/ steel plate
bermed
bermed w/ dirt to discourage burrowing critters

IDW: roll off "V1/V2-1" with 12 cubic yards
now scheduled to be moved to Zia Park ~~lot~~ IDW yard by ACT tomorrow
12-20-18

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	<u>Meet on site - discuss demob/decap activities for day</u> <u>- warm up equipment for use/moving</u> <u>- clean out EA box truck</u>
0800	<u>Bernie B on site</u>

DQCR Page 1 of 3 1 of 3

Reviewed by: _____

Initials: _____

Reviewed date: _____

4. WORK PERFORMED (Continued)

DATE: ~~12/19/18~~ 12/20/18

0825	move EA box truck to EA yard - Secure V1 & V2 w/ steel plates - 4'x4'x1" w/ a traffic cone on each one such that no animals or people can get in accidentally -
0830	take Cascade Sonic Box truck & Hopper w/ equipment to Zia Laydown yard to drop off w/ trailer /
0840	Cascade returns w/ forklift & gets portable toilet to BFF trailer
0845	Cascade returns w/ forklift & truck - Bernie & Carlos organizing re-identified truck core boxes & discarding un-needed V1 & V2 core in roll off #: "V1/V2-1"
0850	Cascade mobilizes rig to Zia Laydown for decon
0855	AAA pumping at BFF trailer to clean toilets (3)
0855	Leave to Zia park yard for SETCO on decon
0900	unload trailer at Zia Park Yard
0910	AAA pumping at Zia Park Laydown Yard servicing portable toilet // 0923 Cascade loads water tank to get water for decon - obtained at ^{KAFB} Fire station #2 // 0940 Return to Laydown yard & unload water tank & unload casing / core barrels from box truck - Bernie & Carlos unloading core from other barrels into appropriate roll offs in Lay-down yards // Pump water out of decon pad // 1040 problem w/ pressure washer - tradeshoeing
1053	Resume Decon activities // 1107 - break for lunch
1215	Differs back from lunch - Resume decon activities
1340	Unload the drill pipe / stems from box truck & stage in yard // 1430 - water break
1432	Resume decon of drill pipe

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 *2 of 3*

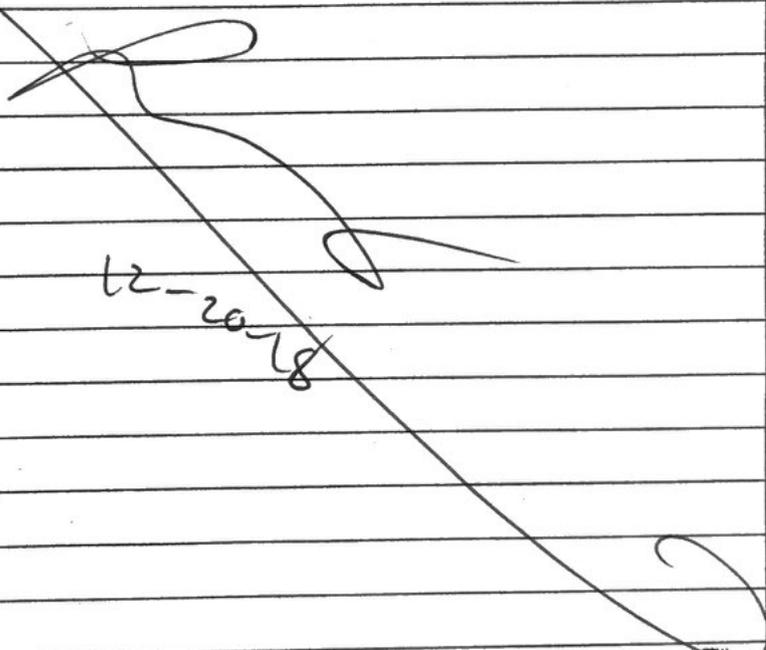
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Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 12/19/18, 12/20/18

4. WORK PERFORMED (Continued)	
1507	ACT brings roll off "VL/V2-1" to <90-Day yard pending analysis on secondary containment
1527	Pull rig on decan pad // 1550 Cascade to get more water to decan rig - // place "pending analysis" label on roll off "VL/V2-1"
1667	Drillers back up/water - drain pressure washes & winterize for night - set up to decan rig in morning
1650	Cascade off site
1700	Lone star pherocaps off site
	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lone Address
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 3 of 3

Reviewed by: _____

Initials: _____

Reviewed date: _____

Vadose Zone - 62735DM02
 Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
 Daily Quality Control Report - Non-Construction

ROLE: SSMO

DATE: 12-21-18

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
Lone Andress	EA - Site Health and Safety Office
Roger Rod Riquiez	Cascade - Lead Driller
James 'C' Drc/Lone Sitzenma	Cascade - Drillers Helpers

2. OPERATING EQUIPMENT <i>pressure washer - forklift -</i>			
Team #1	Team #2	Spare	
YSI Professional Plus 15K101398 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>	
MiniRAE 3000 592-915778 Wh0005 <input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006 <input type="checkbox"/>	
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044632 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>	
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0700 Decan Pad H&S Brief
 - began rig - load & secure casing for next well onto trailer
 - water secured

FDW: ~5700 gallons water in Baker tank (full)
 ~55-gallon drums of solids from decan pad:
 ~48 gal @ ~18 gallons

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 Met on site - H&S Brief - tasks for today:
 decant water rig & load casing on trailer

0730 Begin to set up to decan // 0752 - have been trouble shooting pressure washers - beginning to decan rig

Reviewed by: _____

Initials: _____

Reviewed date: _____

DATE: 12-21-18

4. WORK PERFORMED (Continued)

0800 Loading select casing on trailer - casing was decontaminated yesterday and is being loaded in preparation for the next well after the break.

0840 begin to pump water out of decan pad into Baker Tank on site for IDW decan water collection

0955 Bob Marley on site to relieve Lane of 5010

1055 Crew moves Sonic rig off decan pad.

1115 Bob Marley off site Lane back as 5010

1136 - Work completed - Rig decontaminated, trailer loaded, box truck loaded - IDW water in Baker tank "VZ-Decan" is ~ 2.5 ft full = ~5700 gallons - IDW solids in two 55-gallon drums:
 - "VZ decan Pad Mud - DMØ1" w/ ~48 gallons
 - "VZ decan Pad Mud - DMØ2" w/ ~18 gallons

1140 Cascade done working just waiting for Forrest from Cascade to pick up rig & take it to the shop

1150 - Lane off site

12-21-18

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

**Kirtland AFB Bulk Fuels Facility Vadose Zone Coring – 62735DM02
Daily Quality Control Report – Non-Construction**

ROLE: SSH0

DATE: 1/4/19

WEATHER: CLEAR, COLD (17°)

WELL ID: KAFB 10658/247

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
B. BOCKLISCH	EA - Site Health and Safety Office
MATT KENNEDY	HIGH MESA (HM)
DEROY MOORHEAD	HIGH MESA
2. OPERATING EQUIPMENT	
DITCH WITCH HYDRAULIC	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
0800	TBSM
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0800	TBSM / MEET W/HM / DISCUSS WORK SCOPE
0810	HM FILLS UP TANK W/ WATER AT HYDRANT NEAR FIRE HOUSE AND THROWS OUT WATER LINES
0905	MET W/MARTIN W/ALT DRAPPED ROLL OFF AT KAFB 10658

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring – 62735DM02

Daily Quality Control Report – Non-Construction

ROLE: SSHO

DATE: 1/6/19

WEATHER: OVERCAST, COOL (34°F)

WELL ID: 14AFB106V2

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
B. BOUESCH	EA - Site Health and Safety Office
FORREST CHATTIN	DRIVER / CDLP
MATT SANCHEZ	HELPER / CDLP
SEIBERT LESLIE	HELPER / CDLP

2. OPERATING EQUIPMENT

FORKLIFT, PICKUP / TRAILER

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0725	T65M
1450	ON SITE. SET UP TO DRILL
1710	OFF SITE.

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0725	T65M
0750	CREW LOADING/UNLOADING EQUIPMENT TO MOVE TO BFF.
0806	TAKE FIRST LOAD TO BFF

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring – 62735DM02

Daily Quality Control Report – Non-Construction

ROLE: SSHO

DATE: ~~1-6-18~~ ^{TE} 1-6-19

WEATHER: Overcast

WELL ID: 10658

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Tyler Curley	EA - Site Health and Safety Office

2. OPERATING EQUIPMENT

Drill rig + pipe truck

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0700	Onsite
0730	H&S meeting
0952	Collect equipment rinseate
1230	start drilling
1704	Complete drilling for the day, reached 106'
1725	offsite

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Onsite
0730	H&S meeting, start setting up sonic rig.
0845	Set up rig over boring location
0952	Collect equipment rinseate

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: SSHO

DATE: 1-7-19

WEATHER: Sunny

WELL ID: KAFB 106V2458

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
Tyler Curley	EA - Site Health and Safety Office
2. OPERATING EQUIPMENT	
Drill rigs + support trucks	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
0700	Onsite
0710	H&S w/ sonic crew
0730	H&S w/ arch crew
	Monitor Breathing zone w/ PID @ each site, perform SSHO duties.
1704	Offsite
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0700	Onsite
0710	H&S w/ sonic crew
0730	H&S w/ Arch crew
0818	@ sonic rig, collect read BZ PID.

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 1-7-19

WEATHER: Clean Sky; 40s

WELL ID: KAFB-10658

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Tyler Carley</u>	EA - Site Health and Safety Office
<u>Joshua Messinger / Kylian Robinson</u>	EA - Geologists
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>James Due / Gabe Sallee</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

<u>JM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>met on site - H&S briefing</u>
-	<u>Installed casing to 198 ft bgs</u>
-	<u>drilled to 206 ft bgs</u>
-	<u>IDW - 58-1 onsite with ~ 1 yd³ waste</u>
-	<u>Visitors - NONE</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Met on site - H&S briefing - drillers warm up equipment</u>
<u>0820</u>	<u>Core run 106-116' up</u>
<u>0840</u>	<u>Core run 116-120' up - 0703 Core run 120-126' up</u>
<u>0931</u>	<u>Core run 126-136' up - 1027 Core run 136-145' up</u>

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 1/7/18

WEATHER: 45°F Sunny

WELL ID: KAFB-106V2

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Bachish	EA - Site Manager/Supervisor
Tyler Corley	EA - Site Health and Safety Office
Carlos Montoya	EA - Geologist
Forest Chaffin	Cascade - Driller
Matthew Sanchez/Gibert Leslie	Cascade - Drillers Helpers

2. OPERATING EQUIPMENT

Arch Drilling Rig, Pipe Truck, Forklift

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

	H+S Meeting
	~9 cu of IDW soil in Roll-off # V1/V2-2
<u>TD</u>	TD Reached (280 bgs), tagged Bottom @ 283.5 bgs

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Cascade and EA onsite, conducted H+S safety meeting
0730	Rig Warm up started and setup
0820	Drilling started
0839	Bernie Bachish onsite

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report -- Non-Construction

DATE: 1/7/18

4. WORK PERFORMED (Continued)	
0845	Drillers took Water Break
0850	Hydraulic Pan on Drilling rig seems to be malfunctioning, Drillers are troubleshooting the problem
0855	Bernie Bochosh offsite
0920	Drillers advise that the table Bushings on the clamp that holds the casing while joints are being put together, have worn and need to be replaced. Bernie Bochosh was advised and Hot Work permit has been called in.
0926	Drillers moved to the GWIS LayDown yard to fit table Bushings.
0930	Arrived @ Lay Down yard
1020	Bryan Shaw from Hose & Hydraulic onsite to drop off some supplies to the Drillers.
1036	Welding completed, started fire watch
1106	Completed Fire Watch, headed to KAFB-106V2
1108	Arrived @ KAFB-106V2
1130	Broke for lunch
1206	Back from lunch
1210	Drillers have finished repairing/Installing table Bushing, Resumed Drilling
1345	Drillers took water break
1628	Reached TD @ 280 bgs
1632	Tagged bottom of well @ 283.5 bgs, started site clean up pulling Drill Rod
1710	Finished pulling Drill Rod, started site clean up
1726	Out and Cascaide offsite

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Carlos Montoya
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: SSH0

DATE: 1-8-19

WEATHER: Sunny 41°F

WELL ID: 10658/V2

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Tyler Curley	EA - Site Health and Safety Office

2. OPERATING EQUIPMENT

Drill rigs & support trucks

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0700	Onsite
	H+S w/ each drill crew
	Perform SSH0 duties
1730	Offsite

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Onsite
0710	H+S w/ Sonic crew
0720	H+S w/ Arch crew
0817	@ Arch rig

Reviewed by: _____

Initials: _____

Reviewed date: _____

ROLE: Geologist

DATE: 1-8-19

WEATHER: Partly cloudy; high 40s

WELL ID: KAFB-10658

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Tiles Curley</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>James Due / Gabe Sallee</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

<u>JRM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Met on site - H&S Briefing</u>
-	<u>drilled to 276 ft bgs</u>
-	<u>Installed casing to 268 ft bgs</u>
-	<u>Visitors: NONE</u>
-	<u>IDW: S8-1 onsite with 1.5 yd³</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Met on site - H&S Briefing</u>
<u>0720</u>	<u>Drillers warm up equipment - 0745 drilling activities resumed</u>
<u>0820</u>	<u>Core run 206 - 216' out</u>
<u>0850</u>	<u>Core run 216 - 226 out</u>

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 1/8/19

4. WORK PERFORMED (Continued)	
1025	Started constructing Tremie Pipe
1143	Started Backfilling hole with chips // 1210 Hydrated chips $\frac{1}{3}$ gal H ₂ O
1215	Break for lunch #1240 ^{cm}
1245	Back from lunch
1250	Started setting up to install first of nested Wells (KAFB-106V2-267)
1400	Started pouring sand, 3 bags @ 167.2' bgs. and pulling out a five foot joint.
	- Had a discussion this morning with Bryan Ludowise about KAFB-106V2-270 Well, screen was originally placed @ 270-272.5' bgs, ^{cm} clay layer top of clay layer is @ 269' bgs screen was moved 3' up to 267' bgs after approved by Bernice Bochish
1424	Sand tagged @ 267.1' bgs,
1425	Added 1/2 bag of sand, 266.4' bgs top of sand
1434	KAFB-106V2-267 TD = 269.7' bgs
1515	Pulled 10' casing out of hole
1524	Tagg hole @ 265.5 ^{265.9} 266.5 ^{266.5} After added 3 bags of bentonite
1529	Tagg hole @ 260.1' After adding 3 bags of bentonite chips and pulled out five foot casing
1540	Pull at 10' of Tremie pipe
	- Tyler Curley advised that Devin J. approved new sand pack thickness from 1/2 foot above and below screen to 1' ft below and above screen
1548	Added 4 bags of chips TD @ 256.5'
1520^{cm}	
1550	Pulled 5' casing out of hole TD @ 253.5' after one more bag of chips

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Carlos Montoya
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring – 62735DM02
 Daily Quality Control Report – Non-Construction

ROLE: SSHO

DATE: 1-9-19

WEATHER: Sunny

WELL ID: 10GS8/10GV2

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Tyler Curley	EA - Site Health and Safety Office

2. OPERATING EQUIPMENT

Drill rig & support trucks

3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0700	Onsite
	H&S w/ drilling crews
	perform the SSHO duties
1730	Offsite

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Onsite
0710	H&S w/ Arch crew
0720	H&S w/ Sonic crew
0730	@ Arch rig

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 1-9-19

WEATHER: Mostly Clear; 40s

WELL ID: KAFB-106S8

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Tyler Curley</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Ben Holt / Stephen Busby</u>	EA - Helpers
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>James Duc / Gabe Sallee</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT See individual forms

<u>Done</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Met on site - H&S briefing</u>
-	<u>Drilled to 319 ft bgs</u>
-	<u>Installed casing to 310 ft bgs</u>
-	<u>Visitors: NONE</u>
-	<u>IDW: S8-1 onsite with 6 yds³ (6 yd³)</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Met on site - H&S briefing</u>
<u>0825</u>	<u>Core run 276-286' out</u>
<u>0935</u>	<u>Core run 286-293' out</u>
<u>1025</u>	<u>Core run 293-296' out</u>

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 1-9-19

4. WORK PERFORMED (Continued)

1100	driller stated that he's having trouble keeping core in barrel — switched bit to auger bit
1226	drillers take lunch - still unsuccessful at getting next core up
1310	drillers off lunch break
1325	Core run 296 - 300' out - completely disturbed and wet - driller discarded core — not recovered due to poor subsurface representation. No clay observed; only sand.
1535	Core run 304 - 313' out
1620	Core run 313 - 319' out
1640	Site cleanup + refueling
1655	drillers and EA off site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Joshua Messenger
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 1/9/19^{cm}

4. WORK PERFORMED (Continued)	
0808	Tagged sand @ 248.9' bgs
0809	Added 1 Bag of chips, tagged @ 247.8' bgs
0810	Hydrated bentonite zone 266-253.5 w/ ~10 gal of water
0822	Tagged Well KAFB-106VZ-267.0 @ 266' bgs because it is getting stuck in a hard down hole
0834	Tagged Well KAFB-106VZ-250 @ 252.6' bgs
0842	Pulled out 5' of casing
0859	Tagged chips @ 244.3 after adding 3 bags of chips
0909	Hydrated chips w/ ~10 Gal of water and added 2 bag of chips new chip tagged @ 239.3' bgs
0932	Added 6 bags of chips and pulled 10' of casing
0937	Hydrated chips w/ ~8 gal of water (245 zone chips)
0942	Tagged chips 232.2' bgs
0955	Add 8 bags of chips and pulled 10' of casing
0958	Tagged chips @ 221.7
1000	Started running 3 rd well casing (KAFB-106VZ-215)
1036	218.7' is the top of chips after adding 4 Bags of chips
1045	Add 7 bags of sand, sand was tagged @ 214' bgs
1049	Pulled 5' of casing
1100	Hydrated chips w/ ~10 gal of water (230 zone)
1122	Tagged Well KAFB-106VZ-215 @ 217.5' bgs
1124	Tagged Sand @ 214 ^{cm} bgs 213.2' bgs, Driller thinks there was some sand in shoe that fell into hole
1134	Pulled 5' of casing
1141	Tagged chips at 208.6' bgs after adding 4 ^{cm} bags of chips
1143	Hydrated chip zone @ 213' bgs w/ 5 Gal of water

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Carlos Montoya
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 1/9/18^{cm}19

4. WORK PERFORMED (Continued)	
1148	2M onsite to drop off 2 pallets of 10/20 sand
1158	1158 pulled out 10' of casing
1201	Tag chips @ 195.7 after adding 3 ^{cm} bags of chips
1205	Broke for lunch
1243	Back from lunch
1247	Hydrated chips w/15 gal of water (w/13' bgs)
1302	Added 2 Bags of chips and pulled out 5' casing tagged chips @ 188.8' bgs
1314	Added 3 bags of chips and pulled 10' of casing
1318	Tagged chips @ 181.1' bgs
1323	Hydrated zone 205'-195' w/ ~10 gal of water
1337	Added 7 bags of chips and pulled 10' of casing
1342	Tagged chips @ 175.4
1343	2M onsite to drop off cement
1359	166.3' bgs where top of chips is after 13 bags of chips
1422	Started running 4 th Well (KAFB-106V2-157.5)
1450	Hydrated chips at 185' w/ ~10 gal of water
1506	Tagged 160.3 ^{cm} KAFB-106V2-157.5 @ 160.3' bgs
1529	Chips @ 161.5 ^{cm} after adding 4 bags of chips
1534	pulled 10' of casing and added 1 bag of sand, and tagged it 158.8 ^{cm} @ 158.8' bgs
1547	Added 4.5 bags of sand and was tagged @ 156.1' bgs
1558	Added 1 bag of chips and tagged top of chips @ 154.0'
1627	Hydrated 185-185 zone of chips
1628	pulled out 15' of casing and added 5 Bags of chips, Driller thought he had two 5' joints, instead there was a 5' and 10' joint.

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name _____

Signature _____

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report – Non-Construction

ROLE: SSHO

DATE: 1/10/19

WEATHER: CLEAR, COLD (~35°F)

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>B. BOCKISCH</u>	EA - Site Health and Safety Office
<u>B. NYDOSKE</u>	<u>ADP</u>
<u>L. MOOREHEAD</u>	<u>HMCG</u>
<u>E. WHITE</u>	<u>HMCG</u>

2. OPERATING EQUIPMENT

Team #1	Team #2	Spare
YSI Professional Plus 15K101398 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005 <input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006 <input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

<u>0735</u>	<u>HYDROVAL KAFB10657 AND DISPOSE OF CUTTINGS IN ROLL OFF.</u>
<u>1202</u>	<u>PUT STEEL PLATE OVER KAFB106247.</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0735</u>	<u>B. BOCKISCH ON SITE. MEET W/ B. NYDOSKE. LOOK AT BAREHOLE LOCATION AND PLAN SITE ACCESS.</u>
<u>08:00</u>	<u>HMCG ON SITE. DO TGSN, SET UP TO HYDROVAL KAFB 10657</u>

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: SSH0

DATE: 1-10-19

WEATHER: Sunny

WELL ID: 10GS8/106V2

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Tyler Corley	EA - Site Health and Safety Office

2. OPERATING EQUIPMENT

Drilling / support trucks

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0700	Onsite H&S w/ both drill crews Perform SSH0 duties
1710	Offsite

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Onsite
0709	H&S w/ Arch crew
0730	H&S w/ Sonic crew
0750	@ Arch rig Sonic rig

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
 Daily Quality Control Report -- Non-Construction

DATE: 1-10-19

4. WORK PERFORMED (Continued)	
0820	@ Sonic rig
0820	@ Arch rig
0915	@ Sonic rig
0945	@ Arch rig
1045	@ Sonic rig
1110	@ Arch rig
1125	PID 1.1 @ rig platform but 12.2 directly over the well. Will have the driller that is pouring chips & sand wear a respirator.
1258	@ Sonic rig
1310	@ Arch rig, will monitor BZ while cascade is building the well. Matthew Sanchez is in level C PPE.
1413	All workers near well head are in respirators due to high PIDs from well casing (7000 ppmv). BZ is between 40 + 25 ppmv.
1450	@ Sonic rig, Arch rig taking a break.
1458	@ Arch rig
1530	Benzene tube test, no benzene
1710	Offsite

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Tyler Curley
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

ROLE: Geologist

DATE: 1-10-19

WEATHER: Mostly Clear Sky; 40s

WELL ID: KAFB-10658

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Tyler Curley</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>James Due / Gabe Sallee</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT See individual forms

<u>Jim</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Met on site - H&S Briefing</u>
-	<u>Drilled to 366 ft bgs</u>
-	<u>Installed casing to ~ 360 ft bgs</u>
-	<u>Visitors: NONE</u>
-	<u>IDW: S8-1 onsite with ~ 6.5 yd³</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Met on site - H&S Briefing</u>
<u>0715</u>	<u>Equipment warm-up</u>
<u>0800</u>	<u>Drilling resumed</u>
<u>0830</u>	<u>Core run 319 - 326' out</u>

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 1-10-19

4. WORK PERFORMED (Continued)

0950	Core run 326 - 336' out
1115	Core run 336 - 346' out
1155	Drillers on lunch break
1245	Drillers off lunch break
1350	Core run 346 - 356' out - 355 to 356' highly disturbed + discarded: appeared as sand
1505	Core run 356 - 366' out
1538	Site cleanup + refueling
1600	Drillers + EA of site

A large, empty rectangular area with horizontal lines, likely a placeholder for a drawing or additional notes. A large handwritten signature is visible in the lower-left portion of this area.

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Joshua Messenger
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 1/10/11

WEATHER: 45°F Cloudy

WELL ID: KAFB-106V2

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Bochaz	EA - Site Manager/Supervisor
Tyler Curley	EA - Site Health and Safety Office
Carlos Montoya	EA - Geologist
Forest Chatton	Cascade - Driller
Matthew Smoloz/Sibet Leslie	Cascade - Driller's Helper

2. OPERATING EQUIPMENT

Arch Drilling Rig, Fork Lift, pipe/water truck, Jack stands

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H&S Meeting
Installed KAFB-106V2-115
Installed KAFB-106V2-100

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	EA and Cascade onsite
0728	Started Rig warm and site setup of Daily activity
0751	Tagged chips @ 130.1
0804	Added 5 Bags of chips and pulled ^{EM} 5' 10' of casing

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

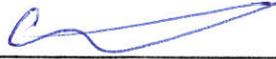
DATE: 1/10/19

4. WORK PERFORMED (Continued)

0807	Tagged Chips @ 126.4' bgs
0813	Added 5 bags of chips and tagged @ 120.5' bgs
0822	Started running well KAFB-106VZ-115/10855 Tagged Well @ 117.5' bgs
0906	Added 1 3/4 bags of chips, and tagged it @ 118.5' bgs
0910	Added 2 bags of Sand and tagged it @ 117.0' bgs
0911	Act and Earl Morse onsite to pick up Roll off #V1/2-2
0924	Added 5 1/2 bags of sand and tagged it @ 113.7 ^{113.9} bgs
0935	Pulled 5' of casing out of hole and Added 1 bag of chips tag them @ 111.5' bgs.
0940	Drillers took water break
0800	Hydrated chip zone ~155-165 with ~8 Gal of water (Bottom of PVC @ 165' bgs)
1000	pulled 5' casing out of hole and added 2 bags of chips
1005	Hydrated chip zone ~145-155 with ~9 Gal of water
1007	Hydrated chip zone ~135-145 with ~10 Gal of water
1011	Tagged chips @ 110.4 bgs
1015	Added 3 bags of Chips and tagged it at 107.0 ^{at 107.0} @ 107.0' bgs
1019	Pulled 5' of casing and added 1 bag of chips
1024	Hydrated chips 135-125 zone w/ ~10 gals of water
1026	Tagged chips @ 104.1' bgs
1029	Added 1/4 bag of chips and tagged them @ 103.5' bgs
1030	Started running 6th Well KAFB-106VZ-100
1025	Bernie Bachist on-site to pick 3 bags of Hole plug for Hydro-knifing of KAFB-10658
1039	cm started
1058	Installed well KAFB-106VZ-100 and tagged @ 102.6' bgs
1117	pulled 5' of casing and added 2 bags of sand tagged @ 100.7' bgs

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Carlos Montoya
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 1/10/19 ^{cm}

4. WORK PERFORMED (Continued)	
1124	Added 1 bag of sand and Tagged it @ 98.5' bgs
1126	Drillers took water break
1125	Tyler Corley advised that PSD level are above 5ppm near where the driller starts to pour materials in holes Drillers helper will wear Respirator while in the area
1200	Broke for lunch
1239	Break from Lunch
1245	Drillers advised that they are tracking down a Respirator that fits. The one on hand is too small. We have a medium to large size and a large to X-large size is needed. 1249 levels are high enough for everyone to wear Respirators.
1350	- Mask was not put on correctly, work resumed
1400	Hydrated zone 125-115' w/ ~10 Gal of water
1404	Added 3 bags of chip and pulled tagged it @ 88.5' bgs
1423	Add nine bags of chips tagged it @ 86.0' bgs, Driller thinks there is a cavern of some sort taking material.
1423	Pulled 10' casing and Added 4 bags of chips
1438	Hydrated chip zone 115-105' w/ ~10 Gal of water
1442	Tagged chips @ 86.0' bgs
1446	Added 5 bags of chips tagged @ 81.0'
1520	Added 4 bags of chips and pulled 20' of casing
1524	Hydrated chip zone ^{105-95' bgs} 115-105' w/ ~10 Gal of water
1528	Hydrated chip zone ^{95-85' bgs} 105-95' w/ ~9 Gal of water
1531	Tagged chips at 76' bgs ^{then} after adding 22 bags of chips
1545	Took Break from Respirators
1600	Resumes work

14 + 1111

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name _____

Signature _____

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 1-15-19

WEATHER: Mostly clear; 40s
chance of rain in afternoon

WELL ID: KAFB-106S8

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Mike McKinney</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	<u>EA - Geologist</u>
<u>Roger Rodriguez</u>	<u>Cascade - Lead Driller</u>
<u>James Due / Gabe Selba</u>	<u>Cascade - Driller's Helpers</u>

2. OPERATING EQUIPMENT see individual forms

<u>JM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Met on site - H&S Briefing</u>
-	<u>Drilled to 406 ft bgs</u>
-	<u>Casing installed to \approx 400 ft bgs</u>
-	<u>Visitors: Hose & Hydraulics, Inc.</u>
-	<u>IDW: S8-1 onsite with \approx 8 yd³</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Met on site - H&S Briefing</u>
<u>0705</u>	<u>drillers warm up equipment</u>
<u>0810</u>	<u>drilling resumed - 0920 Core run 366 - 376' out</u>
<u>1015</u>	<u>Core run 376 - 386' out - 1130 Drillers take lunch</u>

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 1-16-19

WEATHER: low SDs; partly cloudy

WELL ID: KAFB-10658

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Earl Morse / Mike McVay	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Roger Rodriguez	Cascade - Lead Driller
James Due / Gabe Sallee	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT *see individual forms*

<i>JM</i>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	Met on site - H&S briefing
-	Drilled to 450 ft bgs
-	Installed casing to \approx 445 ft bgs
-	IDW: 58-1 onsite w/ 8 yd ³
-	Visitors: Noise & Hydraulic

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0900	Met on site - drillers warm up equipment
0730	H&S briefing - discussed ^{organic} vapors/monitoring; slips - trips - falls; communication
	- driller stated that he would do extra thorough rig warm-up to monitor hydraulic pump
0800	Minor leak detected - drilling ops. resumed. (small, slow leak contained; mechanic notified)

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 1/16/18

WEATHER: Sunny 40's

WELL ID: KAFB-10657

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Borchish	EA - Site Manager/Supervisor
Denise Denise Wilt	EA - Site Health and Safety Office
Carlos Montoya	EA - Geologist
Forest Chatten	Cascade - Driller
Matthew Sandoza / Robert Leslie	Cascade - Driller's Helpers
Matt Cain	Cascade - Driller

2. OPERATING EQUIPMENT

Arche Rig, Pipe/Water Truck, Forklift,
Drilled to 155' bgs core

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

	H & S Meeting
	Drilled to 155' bgs
	10 ^{cm} cy of IDW Soil

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	H & S meeting
0715	met w/ Abg Parks and Bernie to discuss placement of well
	Parks Department was ok with placement
0800	Started moving equipment to KAFB-10657 from Day Down yard

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 1/16/19

4. WORK PERFORMED (Continued)	
0856	While moving Drilling Rig on to the Soccer Field, the Drill Rig's rear left wheel ran over a water well pad cracking it in half. Bernice Bschizk has been advised and photos were taken - Bryan L. was called by Drillers and have been advised to stand down until he arrived
1005	Bryan L. onsite
1045	Bryan L. offsite
1050	C. Montoya offsite to pick up more panels and flagging for TCR // 1100 Bernice Bschizk on site
1125 ^{am}	C. Montoya onsite
1150	Break for Lunch
1200	Bryan L. onsite and Earel Morse
1235	Earel Morse offsite
1240	Back from lunch
1243	Bernice offsite // 1350 Started Drilling
1430	Art onsite to Drop off Roll-off
1700	Kate L. onsite But did not enter Exclusion Zone
1705	Kate L. offsite
1740	EA and Cascade offsite

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Carlos Montoya
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 1-17-19

WEATHER: Clear sky; high 40s low 50s

WELL ID: RAFB-10658

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Mike McVey	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Shawn Cain	Cascade - Lead Driller
James Due / Gabe Sallee	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	Met on site - H&S Briefing
-	Drilled to 474 flogs (468-474 in core barrel for the night)
-	Installed casing to \approx 466 flogs
-	IDW: 58-1 on site with \approx 8 yd ³
-	Visitors: Hose & Hydraulics

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0900	Met on site - H&S Briefing
0730	Hose & Hydraulics mechanic on site - mechanic began replacing pump
1115	Mechanic off site - pump replaced
1130	Drillers on lunch break - 1205 drillers on site

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 1/17/19

WEATHER: 45°F Sunny

WELL ID: KAFB-10657

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bernie Buchish	EA - Site Manager/Supervisor
Denise Wilt	EA - Site Health and Safety Office
Carlos Montoya	EA - Geologist
Forest Chetham	Cascade - Driller
Mathew Sindrize	Cascade - Driller Helper
Matt Cash	Cascade - Driller
2. OPERATING EQUIPMENT	
Arch Rig, Fork Lift, Pipe Truck,	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
	H&S Meeting
	6 cy of soil in rolloff #572
	Drilled to 345' bgs
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0700	H&S Meeting Contact w/ EA and cascade
0710	Started Drillers advised that a plug developed in cyclone and needs to be unplugged. Before Drilling can resume

Reviewed by: _____

Initials: _____

Reviewed date: _____

DATE: 1/17/19

4. WORK PERFORMED (Continued)	
0740	Drilling Resumed
0830	Reached 200' bgs, started tripping out Drill Rod to replace with smaller Bit for 9 5/8 casing
0940	Drillers headed to Lay Down yard to pick up 9 5/8 casing
1132	Drillers back from laydown yard
1148	Break for Lunch
1221	Back from Lunch and started tripping in casing
1345	Became Boozak onsite
1410	ACT Onsite to Drop off Roll off #57-1 and Drop off Roll off #57-2
1506	Hose leading to cyclone is clogged, must take it off rig and unclog
1545	Resumed Drilling
1645	Hammer was sticking due to dust, Driller was turning water pump on to clean Hammer and water pump Bolt broke off. Driller on the phone getting advice on how to fix it.
1730	Will need to get a mechanic out to fix them
1745	EA and Cascade offsite

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above

Carlos Montoya
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

ROLE: Geologist Daily Quality Control Report - Non-Construction

WEATHER: Partly Cloudy; 40s; rain

DATE: 1-18-19

WELL ID: VAFB-10658

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Mike McVay	EA - Site Health and Safety Office
Josha Messenger	EA - Geologist
Phawn Cain	Cascade - Lead Driller
James Dwe / Gabe Sallee	Cascade - Driller's helpers

2. OPERATING EQUIPMENT See individual forms

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	H&S Briefing
-	Drilled to TD = 514 ft
-	IDW: 58-1 on site with $\approx 8 \text{ yd}^3$
-	Visitors: NONE

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Met on site - H&S Briefing
0855	Core run 468-474' out
1045	Core run 474-478' out
1155	Core run 478-488' out

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report – Non-Construction

ROLE: SSHO

DATE: 1/19/19

KAPB10658/KAPB106V1

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>Mike McVey</u>	EA - Site Health and Safety Office
<u>Shawn Cain</u>	<u>Cascade - Driller</u>
<u>James Dye/Gabe Sallee</u>	<u>Cascade - Drillers Helpers</u>

2. OPERATING EQUIPMENT		
Team #1	Team #2	Spare
YSI Professional Plus 15K101398 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005 <input checked="" type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006 <input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
<u>0650</u>	<u>Meet drillers at Taco Bell, pick up Shawn to enter base</u>
<u>0815</u>	<u>Tailgate HdS meeting</u>
<u>0900</u>	<u>Pulling remaining pipe from the bore hole.</u>
<u>0940</u>	<u>Finished pulling pipe.</u>
<u>1650</u>	<u>Finished dewatering.</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0650</u>	<u>Meet drillers at Taco Bell, pick up Shawn to enter base</u>
	<u>Would not let me escort Shawn, contact Bernie, email re subcontract.</u>

Reviewed by: _____

Initials: _____

Reviewed date: _____

KAFB10658/KAFB106V1

DATE: 1/19/19

4. WORK PERFORMED (Continued)	
0730	Drop Shawn off at site. Go to laydown yard to get key to EA trailer from Denise.
0800	Calibrate P10 (SN: 592-915778)
0810	Arrive at site
0815	Tailgate H&S briefing w/ Drillers
0820	Moving pipe pulled yesterday to trailer. Still have 300' pipe in the hole.
0900	Pulling remaining pipe from the borehole.
0940	Finished pulling pipe. Tower down, clean up site, head to laydown yard for decom.
1104	Box truck used to pipe at laydown yard. Gabe will stay and unload pipe and decom. Denise at laydown yard w/ other rig will provide H&S oversight. Head back to 10658 w/ Shawn and James to finish site decom.
1130	Jabba arrived on site.
1300	Finished dumping core in roll off. Moved box truck and center truck to EA yard.
1305	Decomposing pipe at laydown yard.
1650	Finished decomposing.
1715	Drop fork lift and trailer off at 10658 site for pickup in the morning
1720	Mike and Drillers off site.

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Mike McVay
Name


Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: SSH0

DATE: 19 January 2019

WEATHER: 30-40's clear

WELL ID: 57decon

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Denise Wilt	EA - Site Health and Safety Office
Forrest Chatham	Cascady
Sibert Leslie	↓
Matthew Sanchez	↓

2. OPERATING EQUIPMENT

ARCA Rig, pipelwater truck, forklift

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

0705	H&S tailgate

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Onsite
0705	H&S tailgate
0715	Warming trucks, set up to decon, truck rig inspections
0715	Deconning pipe

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report -- Non-Construction

ROLE: Geologist

DATE: 1/20/19

WEATHER: 49°F partly cloudy

WELL ID: KAFB-106V^{con}1

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Berme Boelich	EA - Site Manager/Supervisor
Mike Mewey	EA - Site Health and Safety Office
Carlos Minkoff	EA - Geologist
Matthew Sandoz/Gibet Lesik	Cascade-Drillers Hoppers
Forest Chatton	Cascade - Driller

2. OPERATING EQUIPMENT

Arden Drilling Rig, Forklift, Pipe/Water Truck

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Drilled to 140' bgs
140' cy of TBW soil in Roll off # V1/V2-3
H&S Meeting

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	EA and Cascade on site, conducted H&S Meeting
0720	Started to do maintenance on forklift and security loads in preparation to move from laydown yard to KAFB-106V1.

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

DATE:

4. WORK PERFORMED (Continued)	
0820	Left Lay Down Yard and headed to KAFB-106V1 with Fuel load of equipment
0826	Arrived @ KAFB-106V1, started setting up Rig
0905	Drillers left site, to Headed to laydown ^{cm} yard to pick up compressor
0919	Drillers Back from Laydown Yard, continued to setup Site
1000	Drillers advised us that the Rig has developed a Hydraulic leak Bryan L. was called to look at it to judge if repairs are needed before Drilling can Resume, Leak was contained in Secondary containment
1010	Bryan L. note - Leak is small at this point. - Looked @ Leak, will have Drillers monitor leak and extend secondary containment, and use plastic to funnel into containment, Bryan L. ^{cm} is to call repair personnel to discuss correct ^{cm} corrective actions.
1032	Started Drilling ^{cm}
1052	Drillers Helpers setting up expanded secondary containment
1056	Drilling Resumed
1130	Drilled to 40' bgs
1200	Drillers are loading up Stairs to ^{cm} to the Refrigrate Tank and taking them to the Solar Rig's location @ KAFB-10657, then will be taking Lunch.
1245	Back from Lunch
1253	Drillers need to go to laydown yard to pick up generator for a fan to be used as an engineering control to deal with VOC.
1307	Cascade Back on site
1330	Drilled to 70' bgs

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Carlos Montoya
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 1-20-19

WEATHER: 50s; high clouds

WELL ID: KAFB-106 S7

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Denise Wilt</u>	EA - Site Health and Safety Office
<u>Joshua Messinger</u>	EA - Geologist
<u>Shawn Cain / Roger Rodriguez</u>	Cascade - Lead Drillers
<u>James Due / Gabe Sallee</u>	Cascade - Drillers Assistants

2. OPERATING EQUIPMENT see individual forms

<u>Jan</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Met @ laydown yard - H&S briefing</u>
-	<u>Installed casing to 400 fgs - drilled to 406 fgs but left downhole for the night</u>
-	<u>IDW - S7-2 on site with 10 yd³</u>
-	<u>Visitors: ACT</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0640</u>	<u>Arrived @ BFF field trailer</u>
<u>0700</u>	<u>Mob to laydown yard - 0715 H&S briefing</u>
<u>0730</u>	<u>Mob equipment to site</u>
<u>0840</u>	<u>ACT on site with roll off S7-2 - 0855 Act off site</u>

ROLE: Geologist

DATE: 1/21/19

WEATHER: 52°F Partly Cloudy, Breezy

WELL ID: KAEB-106 VI

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Bachin	EA - Site Manager/Supervisor
Lane Andrews	EA - Site Health and Safety Office
Carlos Montoya	EA - Geologist
Forest Chatterin	Cascade Drillers
Matthew Smith / Sibert Leslie	Cascade Drillers Helpers

2. OPERATING EQUIPMENT

Arch Drilling Rig, Forklift, Pipe/Water Trucks

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

HHS meeting
 over drilled to 266.6 ft bgs
 set 1st vapor well to 263 ft bgs
 set 2nd vapor well to 252.5 ft bgs
 filter pack to 248.8 ft bgs; seal to ~237 ft bgs

IDW on site: 12 yards of soil in hard top Roll off
 "VI/V2-3"

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	EA and Cascade onsite
0730	Action Hose leaks to check on leaks that developed yesterday
0744	Action Hose leaks
0750	Drillers preparing PPE

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 1/21/19

4. WORK PERFORMED (Continued)	
0815	H & S meeting conducted conducted
0850	Drilling resumed
0945	TD Decision, Driller's taking winter break
1005	Started Tripping out Drill Rod
1020	Tugged hole @ 266.6 bgs' - set up 4 stage materials to set well // 1045 Begin setting well joints together
1100	2M Delivers several pallets of 3/4" ^{Baroid} bentonite chips
1115	started to run casing of the first well // 1140 set deepest vapor well bottom where it need to be @ 263 ft - 3/4 schedule 80 pvc w/ 0.010 slot screen - see well completion diagram
1200	Break for Lunch // 1245 Lunch over - begin adding sand to well // 1300 wind 16 mph WSW!
11320	pull off 5 ft joint of ^{drive} casing - discs not standing on top of drill platform w/ air fall protection in future - Cascade changing filters for mask - getting clogged w/ dust in air.
1330	Added 7 bags of sand and tugged it at 260 bgs
1321	Started Chipping bottom zone // 1350 water break // 1400 set 2 nd vapor well at tromie pipe in well
1440	Started to ^{trip} second well casing // 1522 trying use of A frame Ladder to pour chips - does not work - its not stable - 2 nd vapor well TD = 252 253.5 ft bgs -
1542	continue adding bentonite chips - top of chips 253.00 ft bgs - → used 11 bags of chips // 1552 start adding sand 10/20 silica sand - using ladder to pour sand ~ 7 ft above ground surface stabilized / leveled ground -

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 3

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 1/21/19

4. WORK PERFORMED (Continued)	
1615	wind increased to 23 mph W
1632	Dipul soil tagged @ 248.8 by probe adding 3 1/2 bags of sand - remove 5 ft drive casing, Re-tension wells accordingly, begin adding bentonite chips
1706	pull 10 ft joint of drive casing - Resume adding Bentonite Chip
1718	pull up drive casing to prevent tapering overnight & secure the well
1720	secure roll off "V1/V2-3" w/ ~12 yards of soil
1736	refueling rig & site clean up for night
1740	Carlos Mantey off site
1800	Cascade off site after phone call to Brian Mydake
1755	Lore Returns equipment to field trailer
1810	Lore off site
1/21/19	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lore Andreas
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 3 of 3

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 1-21-19

WEATHER: high 50s; - breezy

WELL ID: KAFB-10657

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Denise Wilf	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Rogan Rodriguez	Cascade - Lead Driller
James Due / Gabi Salla	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT *see individual forms*

<i>JM</i>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	H&S Briefing
-	Drilled to 450 ft bgs
-	Installed casing to 450 ft bgs
-	IDW: SF-2 on site with 10.5 yd ³
-	Visitors: NONE

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0640	On site - site inspection
0645	Drillers on site - site security relieved/off site
0715	Denise on site
0720	H&S briefing - drillers prep equipment for drilling

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring - 627350MB2
 Daily Quality Control Report - Non-Construction

627350MB2
 62599DM07

ROLE: SE/SSHO

DATE: 1/20/19

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
B. BOCKWISCH	EA - Site Manager/Supervisor
L. ANDRESS	EA - Site Health and Safety Office
FURREST CHATTEN	Cascade - Lead Driller
MATT SANCHEZ	Cascade - Driller Helper
SIBERT LESLIE	Cascade - Drill Helper
Carlos Montoya	EA - Geologist

2. OPERATING EQUIPMENT		
Team #1	Team #2	Spare
YSI Professional Plus 15K101398-Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005 <input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006 <input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044533 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>

3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Health & Safety brief
 Set well ~~Set~~ Set 3rd vapor well in KAFB-106V1
 - bottom of 3rd well @ 217.5 ft bgs
 Set 4th well w/in vapor well KAFB-106V1
 - bottom of 4th well @ 160 ft bgs
 filter packs/bentonite seals to 142 ft bgs

FDW = 12 yds soil in rolloff : "V1/V2-3"

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0710 B. BOCKWISCH ON SITE. CASCADE CREW ON SITE
 WARMING EQUIPMENT, FORK LIFT NOT WORKING.
 RENTAL FORK LIFT COMING.
 7:30 TGSM

DQCR Page 1 of 5

Reviewed by: _____ Initials: _____ Reviewed date: _____

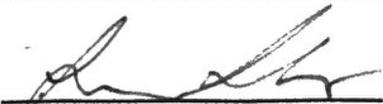
627350M02

DATE: 1/22/19

4. WORK PERFORMED (Continued)	
808	TAG CHIPS. TAGGING 235' BUT TAGGER HANGING UP DUE TO MOISTURE ON CASING. ADD 1 BAG OF SAND TO DRY IT. 2 BAGS
817	TAG @ 231', BEGIN ADDING CHIPS II
0835	Carlos Munoz on site // 0840 Bernie Beckisch off site
0845	prepare to set 3rd well // 0901 hydrate lower bentonite (1st well seal) w/ 10 gallons of water
	- pull up tremmie to 245 ft bgs & work it up & down to settle chips // 0918 Driller take water/heat break: weather is cold and snowing -25°F, overcast, 73% humidity, wind 6 mph SE, visibility 10 miles, barometer 30.46" ↓
0928	Resume work - check readings for vocs at well head as building inside casing, should be reduced - set up engineering controls of fan to blow any vapors away down well - // 0931 PID readings in breathing zone by well head 0.7-1.5 ppm w/ fan & building inside casing - proceeding to work Level D w/ continued vapor monitoring // 0932 Begin setting 3rd well - // 0941 check breathing zone - > 5 ppm, adjust fan - level C for driller helper down well -
0951	well in place - check PID readings at well head - 16-25 ppm sustained - both driller & helper in level C full face respirator at well head -
1002	Bottom of 3rd well 217.5 ft bgs // 1010 resume adding bentonite chips
1026	Removed 10 ft drive casing (20 ft total so far today) - readjust tension on wells -

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lore Andress
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 5

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 6273SDM02
 Daily Quality Control Report - Non-Construction

DATE: 1/22/19

4. WORK PERFORMED (Continued)	
1035	barite seal between wells 2 & 3 set - top of seal at 218 ft. total 21.5 bags of 3/4" uncoated barite chips
1036	add the bags #10/20 silica sand for filterpack on 3rd well - top of sand at 214 ft bgs. - added 7.5 bags of sand.
1038	Drillers take break - Forrest to backyard to get something for Brad Nydick to take to another crew
1124	Resume work - adding barite chips for seal between wells 3 & 4 // 1134 remove 5 ft joint of drive casing
1140	hydrate barite chips between wells 2 & 3, added 10 gal of water, pull up frame, remove 10 ft & leave bottom frame at 235 ft bgs. resume adding barite chips between 3 & 4th wells
1150	remove 10 ft joint of drive casing & re-tension wells accordingly - // 1200 Break for Lunch // 1258 Resume work
1307	added 9 bags barite chips after lunch - remove 10ft joint of drive casing - adjust tension on wells accordingly - weather - New snow storm blowing in: 32°F overcast, snowing wind 7 mph NW - Dew humidity 51% visibility 10 miles barite 30.47 ↓
1317	Hydrate barite chips w/ 10 gal water - pull frame up & remove 10 ft frame - bottom frame at 225 ft bgs at 10 gal water - pull up frame 10 ft & remove left H frame - Bottom of frame now at 215 ft bgs
1322	United Rentals on site w/ new forklift (old one wouldn't start this morning)

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Low Address _____
 Name _____

Signature _____
 Signature _____

EA Engineering, Science and Technology Inc., PBC

DOCR Page 1 of 5

Reviewed by: _____ Initials: _____ Reviewed date: _____

62735DM02

DATE: 1/22/19

4. WORK PERFORMED (Continued)

- 1333 United Rentals offsite // Cascade moving old forklift out of work area w/ New forklift & more removed drive casing from work area & stockpile out of work zone - stage pallets of bentonite chips close to work area near Well head // 1345 Resume adding bentonite chips between wells 3#4
- 1353 Remove 10 ft joint of drive casing & re-tension accordingly - add more bentonite // 1405 Remove 10 ft drive casing & re-tension wells accordingly - add more bentonite chips
- 1423 Set 4th well - bottom of well at 160 ft bgs - Resume adding bentonite between wells 3#4
- 1501 - adding ^{Sand} Bentonite to top of a 10 ft joint driller helper in harness for fall protection - top of bentonite above seal on 3rd well is 161.2 ft bgs - checked for Vol vapors - below 3.3 ppm - sustained ~1.4 ppm as building up in drive casing - // 1517 remove 10 ft joint of drive casing - re-tension wells accordingly - depth to ~~start~~ top of sand pack on 4th well is 156.5 ft - 6.5 ft of bags of sand added
- 1529 Drillers take Break // 1534 - resume work - // 1545 - Brian Nyduske stopped by out of work zone to pick up parts from Forrest & spoke w/ Forrest out of work zone
- 1600 - Hydrate bentonite seal - ~~remove~~ ^{bottom} at 215 ft - added ~~10~~ gallons - unable to hydrate - water pump on rig not working - & sand shooting - 1625 - fixed tensioner & belt
- 1625 - Hydrate bentonite seal - bottom of frame at 215 ft - added 10 gallons of water - remove 10 ft frame - bottom of frame @ 205 ft

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications above.

Line Address _____
 Name _____


 Signature _____

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 4 of 5

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 1-22-19

WEATHER: <40s; cloudy + breezy
light snow in morning

WELL ID: KAFB-10657

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Denise Witt</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Roga Rodriguez</u>	Cascade - Lead Driller
<u>James Due/Gabe Sallee</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

<u>JRM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>H&S Briefing</u>
-	<u>Drilled to 506 ft bgs - TD reached</u>
-	<u>Installed casing to 486 ft bgs</u>
-	<u>IDW: 57-2 (11 yd³)</u>
-	<u>Visitors: NONE</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0720</u>	<u>H&S Briefing</u>
<u>0730</u>	<u>Drillers began prepping for drilling</u>
<u>0832</u>	<u>Core run 456-460' out</u>
<u>0920</u>	<u>Core run 460-466' out</u>

ROLE: SHO

DATE: 1/23/19

WEATHER: 20°F, feels like 16°F, humidity 54%, wind 10mph N
barometer 30.43 ↓ - clear sunny

WELL ID: KAFB-106VI

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Lore Andress	EA - Site Health and Safety Office
Carlos Munya	EA - Geologist
Forrest	Cascade - Lead Driller
Matt	Cascade - Driller Helper
Seibert	Cascade - Driller Helper

2. OPERATING EQUIPMENT

Arch Rig, forklift, pipe truck, PLD

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Health & Safety Brief
set 5th vapor well - bottom of well @ 113 ft bgs
set 6th vapor well - bottom of well @ 102.5 ft bgs
bitwater chips to 3 ft bgs

FDW: NONE on site - picked up by AET today

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 Arrive on site // 0720 H&S Brief - warm up equipment (0700) - 0745 - doing setup to drill & equipment check a small oil leak noted under rig engine - engine & rig engine are in secondary containment - absorbent pad

4. WORK PERFORMED (Continued)

DATE: 1/23/18 19

	placed under leaking area - Forrest Notified Cascade & rig is scheduled for repair, leak will be monitored throughout days absorbent pad changed if necessary
0806	Resume adding bentonite chips to KAEB-10011 - Yesterday bottom of 4th vapor well set at 160 ft bgs & bentonite seal was up to 142' bgs - // 0808 remove 5 ft joint of Drive casing add bentonite chips - & continue process of building well KAEB-10611 - bentonite chips to 113 ft bgs
0850	Flung in 5th well, bottom of well at 113 ft bgs, bentonite chips are at 118 ft bgs. // well secured to other wells, continue adding Bentonite chips
0917	Top of Bentonite chips 114.6 bgs - 34 bags $3/4$ " uncoated bentonite chips added - Adding 10/20 silica sand -
0932	Added 5 bags of 10/20 Sand, tagged top of sand @ 109.5' bgs
0942	Stage another pallet of bentonite chips & well pipe for next well oil leak under rig engine remaining minimal - absorbent pad does not need changing. - water break // 0953 - resume work
1000	Matt Cain from Cascade on site to get materials from Zia PK lay down yard, Sei bert goes w/ hire help - continue adding bentonite chips to well - add 2 bags
1019	begin changing 6th and final vapor well - bottom of well at 102.5 ft bgs -
1038	Matt Cain & Sei bert back on site - Matt Cain off site
1045	Resume adding Bentonite chips - to 103.5 ft bgs, add sand: 99.0 ft bgs - 3 bags of sand total -
1105	- begin adding bentonite chips // 1113 Winter Break

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
 Name

Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 5

Reviewed by: _____

Initials: _____

Reviewed date: _____

4. WORK PERFORMED (Continued)

DATE: 1/23/19

1120	Martin Aranda of ACT on site to pick up roll off "V1/V2-3" & take to the GA ^{IPW} camp yard at Elm Park (pending Analysis)
1128	preparing to hydrate bentonite seals - earlier today added 10 gallons to tremie at 190 ft bgs pulled 10 ft added 10 gallons to tremie at 170 ft bgs added.
1131	Martin of ACT off site w/ roll off "V1/V2-3" will return for roll off at 58'
1138	Act unit to pick up roll off at 58'
1138	Hydrated chip zone 155-165' bgs // 1142 Hydrated chip zone 145-155' bgs w/ 10 gal of water // 1143 Hydrated chip zone 135-145' bgs w/ 10 gal of water - bottom of tremie is at 135 ft
1145	Started pouring chip zone 3'-99' bgs // 1153 Pilled w/ of casing
1157	ACT moves roll off "58-1" to Elm Park IPW yard (pending Analysis) - Martin Aranda off site
1208	Break for lunch // 1250 Lunch over - resume work Resume adding bentonite chips
1316	Hydrate bentonite chips w/ 10 gallons of water 125-130'
1318	Hydrated bentonite zone 115-125 bgs w/ 10 gal of water
1319	" " 110 - 115 "
1322	Hydrated chip zone ^{con} 95-105 w/ 10 gal of water
1334	Pilled 20' of drive casing to 20 ft drive casing
1355	Pilled 20' of Drive casing // 1400 hydrate chip zone 95-105'
1402	Hydrating chip zone 85-95 // 1404 Hydrated chip zone 75-85 bgs w/ 15 Gal of water // 1405 Hydrated chip zone 65-75 bgs w/ 10 gal

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications above.

Lane Aranda
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 3 of 5

Reviewed by: _____

Initials: _____

Reviewed date: _____

DATE: 1/23/19

4. WORK PERFORMED (Continued)

1414	oil leak under engine of Rig still very minimal & on secondary containment & absorbent pad.
1430	Hydrated Chip Zone 55-65 w/ 10 gal of Water
1431/1432	Hydrated chips zone 45-55 w/ 10 gal of Water
1435	" " 35-45 " "
1456	Last 20' of Drive casing out of hole - G vapor well closer sticking up - hydrated chips are 30 ft bgs -
1508	run ~50 gallons of water in hole & reduce flow - began adding bentonite chips & hydrating to ~3 ft bgs
1514	Chips up to 30 bgs, ²⁰⁰ total Bag count is 94 ^{cm} of chips in this zone, Hydrated w/ 200 Gal of chips, - site organization
1521	Drillers take water break - Carlos M to EA field trailer for traffic cones & flagging to secure wells.
1547	well KAFB-106V2 secured by 4 traffic cones & flagging, Carlos M to get ^{get} hot work permit # for Denise Wilt of Sonic crew - then Carlos M off site
	- cutting down V1 well stick ups approx 2 ft above ground & sealing each w/ a 3/4" J plug tightened w/ 1/2" socket wrench. #1 being deepest vapor well & #6 being shallowest vapor well. Reading w/ PID on open #4 well was >1600 ppm (slowly rising - didn't impede work ^{speed} process, just a quick check)
1604	Start breaking down rig to move to Laydman Yard - removed casing hammer so repair shop can access hydraulic lines
1640	Must Down & pack up drilling equipment & tools // 1654 rig off V1 hole V1 surrounded by 3 pallets of Bentonite Chips - hole covered w/ trash can

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lore Andress
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2
4 of 5

Reviewed by: _____ Initials: _____ Reviewed date: _____

DATE: 1/23/19

4. WORK PERFORMED (Continued)

1710	Mobilize to Laydown yard w/ Rig & pipe/water truck for decan // 1715 arrive @ Zia Laydown yard, get rig on secondary containment decan pad & Begin Decan of Rig // 1754 finishing decan of Rig - - Matt Can on site waiting in truck to drive rig to Repair Shop 1805 1705 Rig cleaned & prepped for transport 1820 Rig & Cascade off site 1822 Lane A off site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 5

Reviewed by: _____

Initials: _____

Reviewed date: _____

ROLE: Geologist

DATE: 1-23-19

WEATHER: 40s; breezy; mostly clear

WELL ID: KAFB-10657

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>Denise Wilt</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>James Dne / Gabe Saller</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT <u>see individual forms</u>	
<u>JM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	<u>H&S briefing</u>
-	<u>Casing tripped out & well secured with cap + welded</u>
-	<u>Moved equipment off site to Truman Yard for decon</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0710</u>	<u>At ^{JM} H&S briefing - drillers warm up rig and prep to pull casing</u>
<u>0945</u>	<u>Casing tripped out</u>
<u>0955</u>	<u>Derrick down - 1000 Site clean up / prep to mob to laydown yard</u>

ROLE: SSHO

DATE: 1/24/19

WEATHER: 31°F, feels like 22°F, 47% humidity - clear sunny
wind 11 mph N, barometer 30.43" ↓

WELL ID: KAFB-106V1 & V2

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Low Address</u>	EA - Site Health and Safety Office
<u>Forrest Chatin</u>	<u>Cascade - Lead Driller</u>
<u>Matt Sanchez</u>	<u>Cascade - Driller Helper</u>
<u>Siber Leslie</u>	<u>Cascade - Driller Helper</u>

2. OPERATING EQUIPMENT

trucks, trailers, forklift, ^{small} cement mixer, PID

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

	<u>Health & Safety Brief</u>
	<u>move drive casing from well site to Za PK Laydown Yard</u>
	<u>Set well pad/vault for wells:</u>
	<u>KAFB-106V1 & KAFB-106V2</u>
	<u>- No FODW on site</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>met on site - H&S Brief - task for day - decon drive casing, build well pads for KAFB-106V1 & V2</u>
<u>0730</u>	<u>unload casing jacks, hook up trailer for Forrest to get well building supplies from home depot // 0749 mobilize to Laydown Yard</u>

4. WORK PERFORMED (Continued)

DATE: 1/24/19

- Lane to EA field trailers to bump test PID & print well pad completion diagrams/specifications

0800 All meet at Zia Park Laydown Yard - Forrest heads to Home Depot
Matt & Sibert unload drive casing & stage for decon

0906 head back to V1 & V2 for more Drive Casing

0913 Arrive at V1 & V2 to load drive casing on pipe truck & pick up tools/equipment from site to stage at Zia Laydown Yard -

0945 Bernie Backus on site

0950 Forrest Back on site - discuss well vault/pad completion w/ Forrest, Bernie & Lane // 1013 Bernie off site

- continue site clean up & get wood forms for well vaults

1120 Mobilize to Laydown Yard - call in hot work (cutting rebar) to KAFB fire control // 1127 arrive Zia Park Laydown -
- unload drive casing from pipe truck - Matt & Sibert return to V1 for small generator to cut rebar - // 1140 Return w/ generator

1158 pipe truck unloaded // 1200 Break for lunch // 1240 Return from lunch - saw cut rebar for well pads & load bags of concrete & concrete mixer on trailer // 1253 start cutting rebar - // 1323 Mobilize to V1/V2 to set well pads // 1331 arrive at V1/V2 - call KAFB Firewatch to let them know our ^{hot} work & fire watch is done - set up to construct V1 & V2 well pads

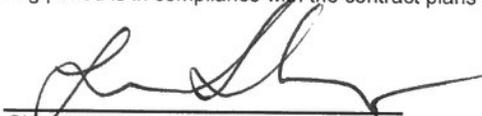
1347 Matt Cain of Cascade dropped off concrete blankets for curing concrete in the cold - and left.

1355 Begin digging out well pad for EAFB-10012

1359 weather windy → clear sunny - 46°F, feels like 39°F, humidity 35%, wind 17 mph N

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
Name


Signature

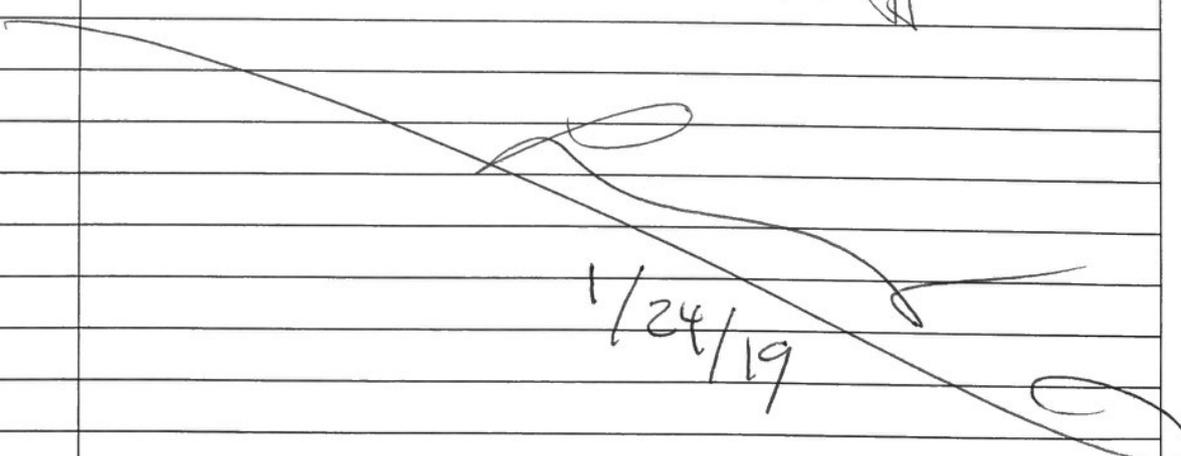
EA Engineering, Science and Technology Inc., PBC

2 of 3
DQCR Page 2 of 3

Reviewed by: _____ Initials: _____ Reviewed date: _____

DATE: 1/24/19

4. WORK PERFORMED (Continued)

1424	Cutting & labeling individual wells below grade for V2 All white PVC labeled w/ a #1 thru #6 (#1 = deepest) & depth of bottom of well - dig out well vault area (18")
1459	Begin digging out well pad for V1 // 1525 - begin cutting & labeling PVC of individual wells (as above) dig out 18" well vault
1555	Set up concrete mixer & ^{connect} set rebar frames together - pour concrete pad for V2 // 1702 finish concrete on V2, let set for final finishing - start pouring concrete on V1
1747	Concrete pad poured & vault set for V2 -
1804	1704 well pads set, vaults secured - set concrete blankets over pads to mark w/ traffic cones & flagging
1815	Lock EA field trailer & gate
1822	Cascade & EA (Lane A) off site
	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Law Andress
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 3 of 3

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
Daily Quality Control Report - Non-Construction

ROLE: SSH0

DATE: 1/29/19

WEATHER: 23°F, feels like 16°F, 73% humidity, wind 6 mph S
0750 - Barometer 30.38" ↓

WELL ID: KAFB-106VI/VZ -
& KAFB-10657 Zia Park Laydown Yd

1. ONSITE PERSONNEL (Including subcontractors and government employees)

Name	Organization
<u>Bernie Backus</u>	<u>EA - Site Manager/Supervisor</u>
<u>Lane Andress</u>	<u>EA - Site Health and Safety Office</u>
<u>Forrest Chittin</u>	<u>Cascade Lead Driller</u>
<u>Matt Sanchez / Siebert Leske</u>	<u>Drillers Helpers</u>
<u>Carlos Mantoya</u>	<u>EA - Geologist</u>

2. OPERATING EQUIPMENT

Forklift, pipe truck, pick up truck & trailer, pressure washer

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- Health & Safety Brief
- De-Noise from KAFB-106VI & VZ
- Decan drill stem & casing
- Mobilize rig & equipment to Bullhead Park & KAFB-10657
- assemble drill rod & 20 ft drive casing sections

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 Meet on site at KAFB-106VI & VZ - Health & Safety Brief - site clean up & demobilize from VI/VZ - Callas into site rig

0830 Load all equipment onto pipe truck & trailer & secure loads
Mobilize to Zia Park Laydown Yard // 0837 arrive at Laydown Yd

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Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 1/29/19

4. WORK PERFORMED (Continued)

	unload trailer & prepare to decon.
0950	Carlos M called - UNITED Rentals looking at Cascades forklift - Needs a starter. // 0953 Cascade sonic crew at laydown yard picking up a portable toilet // 1010 cascade off site w/ toilet in pick-up - continuing to decon drive casing. - // 1015 Forrest to Forklift/UNITED Rentals to inspect starter. // 1030 UNITED Rentals off site. // 1032 Forrest back at Laydown Yard. // 1105 decon completed - loading well building materials onto trailer (is unloading some materials off some trailer
1126	Forrest on site to get chain wrenches from rig - continue loading
1214	Forrest back on site - Driller's break for lunch // 1230 Lunch over - resume work - 1250 B. Backisch on site
1300	Safety moment to discuss situational awareness & taking the firm's effort to perform a task safely -
1320	B. BACKISCH TAKES OVER FOR L. ANDRESS AS SSIB
1330	TAKE FIRST LOAD OF EQUIPMENT TO PARK.
1343	MOVE EQUIPMENT TO LOCATION W/ FORKLIFT.
1413	COMPLETED EQUIPMENT DRP. SITEBT TO GET WATER, FORREST + MATT TO CHANGE OUT FORKLIFTS AT BFF.
1445	CASCADE SWITCHED OUT FORKLIFTS AND WENT TO PICK UP RIG.
1500	ISB ON SITE TO SET UP EXCLUSION ZONE.
1530	ISB TO BFF TRAILER TO DROP OFF FLAGGING.
1600	MET MARTIN W/ACT AT SITE - DROPPED TROLL OFF.
1620	CASCADE AT W/DOWN - STAB + LOAD PIPE.
1638	L. ANDRESS ON SITE - RECEIVE B. BACKISCH - cascade making 20' joints of casing, screwing 5' & 10' joints together

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

2 of 3

Reviewed by: _____

Initials: _____

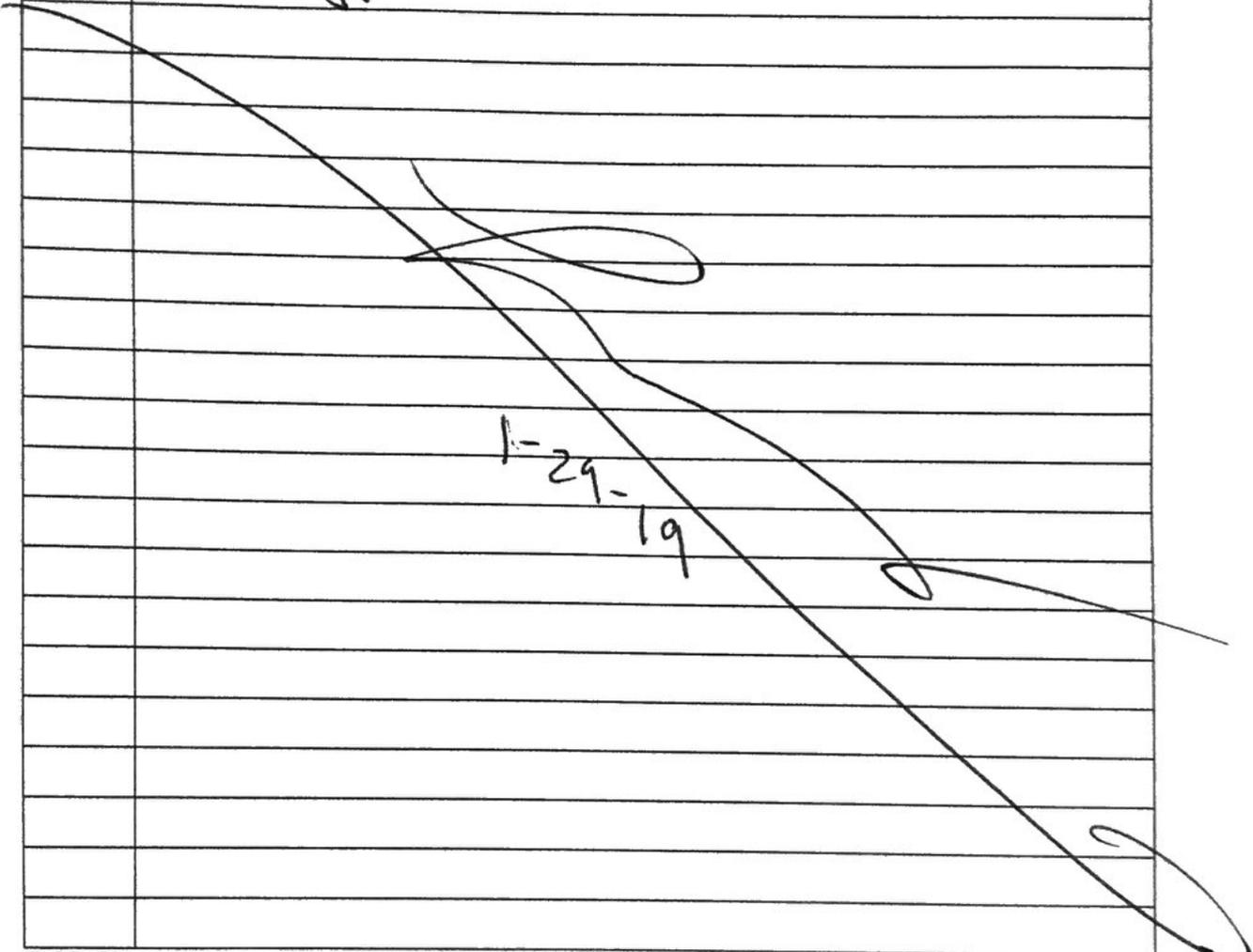
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Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 1/29/19

4. WORK PERFORMED (Continued)

1739 assembled 5 - 20ft sections - began stabbing pipes
w/ 20 ft drill stem
1750 finish work for day
1753 Cascade off site
- Lane Scan Notes & send to Burnie
1800 Lane off site



5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andrew
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 *3 of 3*

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: SSH0

DATE: 1/29/19

WEATHER: CLEAR, COLD (26°F)

WELL ID: KAFB106247

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
B. BOCKISCH / M. McVEY	EA - Site Health and Safety Office
J. MESSENGER	GEO
C. LANDERS	GEO
2. OPERATING EQUIPMENT	
SONIC DRILL RIG AND SUPPORT EQUIP.	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0650	AT SITE. JOSH/CURTIS BEGIN SETTING UP EQUIPMENT FOR CORING.
0700	MEET W/ DRILLERS AT LAY DOWN. WARMING EQUIP. AND WILL MOB TO SITE SOON

ROLE: Geologist

DATE: 1-29-19

WEATHER: P. Cloudy; high 40s

WELL ID: KAFB-106247

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Bernie Brockish / Mike McVay	EA - Site Health and Safety Office
Joshua Messenger / Curtis Landens	EA - Geologist
Roger Rodriguez	Cascade - Lead Driller
James Due / Gabe Sallee	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

--	--

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	Met on site: H&S Briefing
-	Site setup and casing installed to 8 ft bgs (bottom of hydroknife)
-	IDW: 247-1 on site with Oyd ³
-	Visitors on site: ACT

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Met on site - H&S Briefing: 0720 drillers began mobbing equipment into BFF - site setup
0910	ACT escorted into BFF to deliver rolloff 247-1 - 0920 ACT off site
0950	Barrel in site taken

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: SSHO

DATE: 1/30/19

WEATHER: 27°F, feels like 20°F, humidity 66%
wind gust N, barometer 30.16

WELL ID: KAFB-10657

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Berne Bockisch	EA - Site Manager/Supervisor
Lore Andress	EA - Site Health and Safety Office
Carlos Mendoya	EA - Geologist
Forrest Chastin	Cascade, Lead driller
Matt Sanchez / ^{Seibert} Leslie	Cascade, Driller helpers

2. OPERATING EQUIPMENT

Drill rig (ARCH), pipe/water truck, forklift, pickup truck & trailer, PID

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Health & Safety Brief - refresh on General AHAs & Slips trips falls
 Set up ^{to} drill KAFB-10657 in Bull head Park
 - over drilled / reamed hole to 505 ft bgs

IDL on site: roll off "S7-2" w/ 13 yds soil on "S7-3"
 with 9 yds soil & water

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 Met on site at Zia Park Laydown Yard - Health & Safety Brief including extra attention to Activity Hazard Analysis for general site activities, w/ emphasis on slips, trips, & falls.

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Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 1/30/19

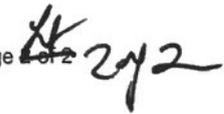
4. WORK PERFORMED (Continued)	
0730	Load drive casing (100') and drill stem onto pipe truck w/ drill bit
0815	Carlos M to help some crew until Arch crew starts drilling
0820	Secure load on pipe truck
0825	Head to Kirtland AFB - 106 S7 in Bullhead Park -
0840	Arrive at park - set up portable toilet & arrange rig/pre-truck set up 2 nd air containment for rig - Bernie to get additional flagging & ^{barrier} Lock
0912	Set up rig over hole // 0916 wind 10-12 mph N
0920	Forrest & Matt Seibert go via laydown to pick up generator ^{air compressor} w/ truck hitch. Matt stays to complete site organization & set up exclusion zone/flagging.
0945	Forrest & Seibert back - set up air compressor on 2 nd air containment & hook up compressor to rig // 1009 Mast up on rig
1023	Raising casing hammer into place - Lane asked Matt & Seibert about the security of the chain from bottom of casing hammer to fork lift they said it was good // 1029 casing hammer in place on Mast - hook up hydraulic hoses to casing hammer // 1051 hook up hose to cyclone
1110	ACT on site w/ wet Roll off Bin - set up 2 nd air containment - // ACT off site @ 1125 @ 1130 Carlos Men site Earl Morse on site w/ Bin label for "S7-2" // Earl Morse off site
1135	Begin tripping pipe // 1145 reval rig on 2 nd air containment @ 1138 - secure boundary of site exclusion zone w/ ^{additional} flagging
1212	Drill pipe & drive casing sitting on bottom - 400 ft bgs
1215	Break for lunch
1254	Back from lunch, started drilling // 1303 - casing hammer switch by drillers stand not working // 1317 1317 switch fixed - resume drilling

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
Name


Signature

EA Engineering, Science and Technology Inc., PBC

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Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 1/30/19

4. WORK PERFORMED (Continued)

1515 at ~490 ft reaming - Carlos M to Sonic Rig to get PPE (lost marks) & the IDW bin labels for roll off "57-3"

1526 over drilled to 505' bgs - clean up at hole

1600 Bryan Nydaske on site - empty hoppers into "57-3"

1605 Carlos M on site - Label roll off "57-3" - contains ~ 6 yds dry soil and ~ 22.5 yds water currently

1625 Bryan talks w/ Forrest & inspect rig // 1620 begin tripping out
Site clean up, pipe truck secured & went to Laydun Yard on Base - security on site early

1705 Carlos M off site // 1700 empty hoppers into "57-3" roll off - Roll off contains ~ 3 yds water & 5 yds soil - total 8 yds in "57-3" - secure roll off w/ tarp - well head secured w/ casing hammer // 1720 Cascade takes forklift to Laydun yard

1727 Lane off site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

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Reviewed by: _____

Initials: _____

Reviewed date: _____

ROLE: Geologist

DATE: 1-30-19

WEATHER: low 50s; mostly clear

WELL ID: KAFB-106247

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Mike McVay</u>	EA - Site Health and Safety Office
<u>Joshua Messenger/Curtis Landers</u>	EA - Geologist
<u>Fogel Rodriguez</u>	Cascade - Lead Driller
<u>James Due/Gabe Salter</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

<u>JMA</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Met on site: H&S briefing</u>
-	<u>Drilled to 162 ft bgs</u>
-	<u>Installed casing to 156 ft bgs</u>
-	<u>IDW: 247-1 onsite (1 yd³)</u>
-	<u>Visitors: NONE</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Met on site & site setup — H&S briefing: discussed slips-trips-falls, uneven surfaces and weather/hydration, pinch points, communication</u>
<u>0720</u>	<u>drillers continue to install new hoses/inspect hoses for leaks</u>
<u>0820</u>	<u>All components operational - drilling began</u>

ROLE: SSHO

DATE: 1/31/19

WEATHER:

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
Lane Address	EA - Site Health and Safety Office
Carlos Mantoya	EA - Geologist
Forrest Chittin	Cascade - Lead Driller
Matt Sanchez/Sibert Leslie	Cascade - Driller Helpers

2. OPERATING EQUIPMENT ^{WATER} <u>ARCH rig, pipe truck, Forklift, PIP</u>			
Team #1	Team #2	Spare	
YSI Professional Plus 15K101398 <input type="checkbox"/> Wh0003	YSI Professional Plus 15K101396 <input type="checkbox"/> Wh0001	YSI Professional Plus 15L100541 <input type="checkbox"/> Wh0002	
MiniRAE 3000 592-915778 <input type="checkbox"/> Wh0005	MiniRAE 3000 592-915790 <input type="checkbox"/> Wh0004	MiniRAE 3000 592-91579 <input type="checkbox"/> Wh0006	
Hach 2100Q 15100C045034 <input type="checkbox"/> Wh0008	Hach 2100Q 15100C044633 <input type="checkbox"/> Wh0009	Hach 2100Q 15100C045025 <input type="checkbox"/> Wh0007	
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Health & Safety Brief
 - set Deep well KAFB-10655 w/ TD = 493 ft logs
 - sand pack to 449 ft logs (bottom of screen)
 - ~~1~~ bag of bentonite chips added
 ONE
 No IDW on site - ACT Picked up bins & transported to EA IDW yard before 0700

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 meet on site, H&S brief, unload pipe truck of drill rod // 0815 head to BFF (V1/V2) to pick up pallets of Bentonite & sand to load onto trailer w/ PVC well pipe/screen. // 0829 - loading trailer @ BFF

DQCR Page 1 of 3

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 1/31/19

4. WORK PERFORMED (Continued)

0848	Head to Bull head Park & KAFB-10657 - Arrive at park - 2M delivering sand & lanterns in Parking Lot - Cascade unloading & staging - ACT picked up roll offs "S7-2" and "S7-3" early this morning - confirmed w/ Earl Morse.
0918	at KAFB-10657 - unload trailer w/ well building material stage materials - warm up rig - move materials from parking lot to exclusion zone - organize well building materials
1030	Begin to set well KAFB-10657 - Deep w/ 40 ft 3" schedule 80 0.010 slot screen w/ a 2 ft sump flat solid end cap. // 1119 tag well at 485' - measure 20' PVC casing - 2/10' short each one - added need to add more PVC - pulled out tag line & tag line brake at splice at 300 ft inside well. - Forrest calls Bryan Nyboke - stand down // 1142 Bryan N directed to pull well (since no sand has been added yet) until we can get tagger - begin pulling well casing off at & removing joints until tag line visible to pull out // 1209 tag line in bottom 20 ft of screen, bottom of well sump & all screen inspected - no damage // 1210 break for lunch
1235	Lunch over resume work - Resplice tag line w/ surgical tape. // 1302 - Resume setting deep well - 40 ft of screen & blank casing reconnected -
1331	496.9 ft screen & casing in hole - w/ some stick up
1337	Moving rig out of way to place casing jacks - well casing stick up set at 493 ^{feet} above ground surface with 3.9 ft stick up

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Law Address

Name



Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 2 of 3

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 1/31/19

4. WORK PERFORMED (Continued)	
1422	begin adding sand to well bore hole (#10/20 silica sand)
1435	remove 10 ft drive casing - re-secured well -
1442	water break // 1450 resume sanding well
1520	Bernie Backisch on site to check on things
1537	Bernie B office site // ~1600 some man in park is taking photos of rig & work area - he is SW of rig & too far away to talk to - has a large telephoto lense on camera - I let Bernie & then know.
1630	Sand to 449 ft bgs - used 57.5 bags powder #10/20 silica sand
1633	begin adding 3/8" uncoated bentonite chip (Hole Plug by Broid)
1645	Security on site - will wait in car until Forrest talks w/ him.
1658	Bentonite up to 449' (one bag) - same as sand - Re-tagged several times - site clean upper day -
1700	Secured well head w/ 11" cap w/ steel plate on it, & a taped clean trash bag as a temp seal -
1705	Rig off - secure site for night
1720	Carlos M off site - Cascade refueling Rig
1731	Cascade off site
1740	Lane off site
1/31/19	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

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Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 1-31-19

WEATHER: mid 50s; mostly clear sky

WELL ID: KAPB-106247

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Mike McVay</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	<u>EA - Geologist</u>
<u>Roger Rodriguez</u>	<u>Cascade - Lead Driller</u>
<u>James Due / Gabe Salles</u>	<u>Cascade - Driller's Helpers</u>

2. OPERATING EQUIPMENT see individual forms

<u>JM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Met on site : H&S briefing</u>
-	<u>Drilled to 226 ft bgs</u>
-	<u>Installed casing to 220 ft bgs</u>
-	<u>Logged to 216 ft bgs</u>
-	<u>IDW: 247-1 (1.5 yd³)</u>
-	<u>Vibras: NONE</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Met on site - 0720 H&S briefing: discussed slips-trips-falls; maintaining awareness - take breaks; kill switches; pinch points; hospital route + base emergency number</u>
<u>0740</u>	<u>drillers warmed up equipment - began adding oil to top head seal for preventative maintenance</u>

Reviewed by: _____ Initials: _____ Reviewed date: _____

Vadose Zone 62735IM02
 Kirtland AFB Bulk Fuels Facility ~~GWTS Expansion/Monitoring~~ ~~62599DM01~~
 Daily Quality Control Report - Non-Construction

ROLE: SSHO DATE: 2/1/19

WEATHER: 34°F, feels like 28°F, humidity 100%, wind 7 mph N, barometer 30.09" ↓

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bernie Beckisch	EA - Site Manager/Supervisor
Lane Andress	EA - Site Health and Safety Office
Carlos Montoya	EA - Geologist
Forrest Chertin	Cascade - Lead Driller
Matt Sanchez	Cascade - Driller helper
Sibert Leslie	Cascade Driller helper

2. OPERATING EQUIPMENT ARCH RIG, WATER/PIPE TRUCK, CASING JACKS, P/D			
Team #1	Team #2	Spare	
YSI Professional Plus 15K101398 <input type="checkbox"/>	YSI Professional Plus 15K101396 <input type="checkbox"/>	YSI Professional Plus 15L100541 <input type="checkbox"/>	
Wh0003	Wh0001	Wh0002	
MiniRAE 3000 592-915778 <input type="checkbox"/>	MiniRAE 3000 592-915790 <input type="checkbox"/>	MiniRAE 3000 592-915579 <input type="checkbox"/>	
Wh0005	Wh0004	Wh0006	
Hach 2100Q 15100C045034 <input type="checkbox"/>	Hach 2100Q 15100C044033 <input type="checkbox"/>	Hach 2100Q 15100C045025 <input type="checkbox"/>	
Wh0008	Wh0009	Wh0007	
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H&S Brief
Set KA FB-106 S7 shallow well - TD of screen is 444 ft bgs - sand filter pack to 414.9 ft bgs - bentonite chip seal (hydrated) to 384.8 ft bgs. grouted to ~275 ft bgs

NO IDW on site.

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 Arrive on site in Bullhead Park - H&S Brief
0720 Bernie B goes to check on other Rig & Cascade
warms up equipment & prepares to set shallow well
0750 Set shallow well - bottom of screen about where H

DQCR Page 1 of 4

Reviewed by: _____ Initials: BT Reviewed date: _____

D - 3.9 stuck up
 S - 2.5 stuck up
 3.1' stuck up

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring - 62599DM01
 Daily Quality Control Report - Non-Construction

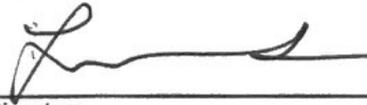
DATE: 2/1/19

4. WORK PERFORMED (Continued)

	should be @ 0843 - will fine tune in a moment, hanging just above 444'.
0844	move ^{well} pipe trailer & set up to resume adding sand & bentonite chips
0900	fine tuning bottom of shallow well - ~ 444.6 ft bgs & bentonite chips are at 447.7 ft bgs - will pull shallow well up to where it needs to be when they get closer w/ bentonite
0905	Begin adding bentonite chips - bentonite chips 444.2 ft bgs 2.25 bags added (50 lb bags) - move over sand pallet
	Begin adding sand (#10/20 Pioneer brand Colorado Silica Sand - 50 lb bags)
0937	pull 5 ft drive casing // 0947 wench cable end connected to top of shallow well lifting bail fell down ^{drive casing} - it is still connected to top of shallow well (also down inside drive casing) fishing it back up // 0953 - fished it back up.
1001	Fine tune bottom of shallow well - pull up to 444 ft bgs top of sand @ 443.9 ft bgs - resume adding sand
1014	pull 5 ft drive casing - sand to 437.6 ft bgs - add more sand - pull 5 ft drive casing - // 1042 Drillers take water break // 1050 Resume work add 1 bag sand // 1100 pull another 5 ft casing joint - sand up to 429.1 ft bgs - 423.1 ft bgs - resume adding sand // 1130 remove another
1130	5 ft joint by casing - sand to 417.1 ft bgs - resume adding sand
	ft sand to 414.9 ft bgs - switch out sand for bentonite
1141	Begin adding star bentonite chips // 1146 Remove ⁵ / ₁₀ drive casing bentonite at 413.2 ft bgs // 1200 Drillers Break for lunch
1240	Drillers Resume work - 1245 pull another 10 ft drive casing & bentonite chips to 399.0 ft bgs // 1300 bentonite seal completed -

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name Low Andress

Signature 

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 2 of 4

Reviewed by: _____ Initials: _____ Reviewed date: _____

~~2/1/19~~

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring - 62599DM01
Daily Quality Control Report - Non-Construction

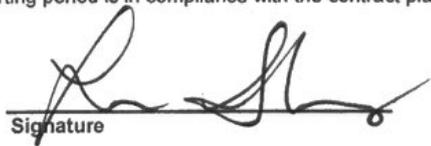
DATE: 2/1/19

4. WORK PERFORMED (Continued)

	depth to bentonite chip seal = 384.8 ft bgs. - pull 10 ft drive casing -
	- Get set up to grout load drive casing on pipe truck
1326	Mobilize to 21a pk laydown yard to unload pipe & get (2) - 55 gal drums for wash out water, & ^{other} supplies
1409	Head Back to KAFB-10657 // 1421 - return to 57. set up to grout - 2 nd ary containment - Visgreen - under grout trough & pump
	- hydrated upper bentonite seal w/ 100 gallons of water
	1 st batch:
	- Mixing grout a 200 gallons of water - with 1 1/2 bags (50lb) of Baroid Brand "Quick Grout" - 20% solids - add to well bore
1506	pulling 20 ft drive casing // 1521 pulling another 20 ft drive casing - accidentally pulled a 10 ft joint up too far & now pulling a 30 ft section - 1535 - 30 ft casing removed
	- pulling 20 ^{more} 20 ft joints to get all casing as that has grout in it (~180 ft of ^{grout} grout was pumped)
1550	Winch line frayed - need to cut winch line back to good part & fire extinguishers on hand - got torch cutting over wetted grass // 1559 cutting over grass wetted again where hot work was - 30 min fire watch started
	- taking sand line spurs to thread clean line in it
1616	Sand line fixed //
1624	Drillers take water break. // 1700 Firewatch over -

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Love Address
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 3 of 4

Reviewed by: _____

Initials: _____

Reviewed date: _____

ROLE: Geologist

DATE: 2-1-19

WEATHER: 50s ; partly cloudy

WELL ID: KAFB-106247

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>Mike McVay</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>James Due + Gabre Sallee</u>	Cascade - Driller's Helpers
2. OPERATING EQUIPMENT <u>See individual forms</u>	
<u>Just</u>	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
<input checked="" type="checkbox"/>	<u>Met on site: H&S briefing</u>
<input type="checkbox"/>	<u>Drilled to 306 ft logs</u>
<input type="checkbox"/>	<u>Installed casing to 300 ft logs</u>
<input type="checkbox"/>	<u>Visitors: NONE</u>
<input type="checkbox"/>	<u>IDW: 247-1 (4.5 yd³)</u>
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0700</u>	<u>EA on site - site setup - 0710 Cascade on site - warm up equipment</u>
<u>0712</u>	<u>H&S briefing: discussed slips-trips-falls; uneven surfaces, pinch points; communication - 0740 drilling continued</u>
<u>0810</u>	<u>Core run 226-236' out</u>

ROLE: SSMO DATE: 2/2/19
 WEATHER: @ 0734 - 30°F, feels like 25°F, 66% humidity, wind 6 mph E
parameter 29.96

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Lane Andrews</u>	EA - Site Health and Safety Office
<u>Carlos Montoya</u>	EA - Lead Geologist
<u>Forrest Chatten</u>	Cascade - Lead Driller
<u>Matt Sanchez / Sibert Leslie</u>	Cascade - Driller/Stdpos

2. OPERATING EQUIPMENT ARCH rig, pipe/water truck, forklift, grout pump & mixing tub, PID

Team #1	Team #2	Spare
YSI Professional Plus 15K101398 <input type="checkbox"/> Wh0003	YSI Professional Plus 15K101396 <input type="checkbox"/> Wh0001	YSI Professional Plus 15L100541 <input type="checkbox"/> Wh0002
MiniRAE 3000 592-915778 <input type="checkbox"/> Wh0005	MiniRAE 3000 592-915790 <input type="checkbox"/> Wh0004	MiniRAE 3000 592-915579 <input type="checkbox"/> Wh0006
Hach 2100Q 15100C045034 <input type="checkbox"/> Wh0008	Hach 2100Q 15100C044633 <input type="checkbox"/> Wh0009	Hach 2100Q 15100C045025 <input type="checkbox"/> Wh0007
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input checked="" type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Health & Safety Brief

- pull all drive casing out of hole
- Grout to 31 ft bgs
- portland cement to ~2 ft bgs

FDW: 2x55 gallon Drums of concrete washout water 50 & 55 gallons respectively

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 Met onsite at KAFB-10657 in Bullhead park - H&S
Brief - pulling casing & grouting/cementing well -

0720 set up to resume grouting valves on grout equipment
froz over Night warming w/ torch

DQCR Page 1 of 2 log 4

Reviewed by: _____ Initials: _____ Reviewed date: _____

DATE: 2/12/19

4. WORK PERFORMED (Continued)

0735	Remove 20 ft drive casing. // 0752 begin mixing 2 nd batch of Grout for this well: 200 gallons of water + 8 bags 8.5 bags Quick grout & pump in well. // 0804 mix 3 rd batch of Grout: 100 gallons water and 5.5 bags Quick Grout & pump in well.
0815	pull 20 ft of casing // pull 20 ft drive casing // 0829 pull 30' 20 ft drive casing & continue pulling 20 foot casing joints
0844	- at total of 230 ft of drive casing at of hole
0924	pull up last of 9 5/8" drive casing - some bendover in bottom of last casing - 390' removed today -
0931	drillers take water break // 0940 break over -
0935	- Kate Lynnes stopped by walking her dogs, to say hi & wish us a good safe day -
0948	- check TD in each well: 493 ft bgs Deep = 493.4 ft bgs (target 444 ft bgs) Shallow = 446.9 ft bgs - 3 ft suckup = 443.9 ft bgs target (444 ft bgs)
	- Secure pipe on pipe truck - swap at lifting mechanism plate for 1 1/4" casing on casing Jocks
1005	add 5 ft 1 1/4" drive casing to pull deeper one
1018	Remove 5 ft 1 1/4" section after deeper one pulled up - Rig off - continue securing drive casing on pipe truck
1028	Move to Za Park Laydown Yard w/ pipe truck & forklift - Woman w/ car blocking big truck exit to park -
1047	arrive at Laydown Yard w/ forklift - // 1100 pipe truck arrives unstop loads unload rails & pipe - reinsert rails on truck

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lave Andress
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 4

Reviewed by: _____

Initials: _____

Reviewed date: _____

DATE: 2/2/19

4. WORK PERFORMED (Continued)	
1121	Head to fill truck w/ water at "Fire Station 2" hydrant
1130	at hydrant - hook up hoses valve & begin adding water to pipe/water truck.
1136	Full - disconnect hoses & valve // 1140 head back to KAFB-10657 th in park
1150	Arrive back at site stage water truck and pipe & cut for lift -
1200	Drillers break for Lunch // 1239 Lunch over - prepare to mix more grout - // 1245 mixing another batch of grout 200 gallons water and 8.5 bags Quick
1254	Mix another batch of grout: 200 gallons water and 8 bags Quick & pump in well. // 1303 clean off hoses & grout tub w/ same water in tub - pull 25 ft drive casing // 1322 pull 20ft drive casing - continue pulling casing - A total of 80 ft 11 3/4" casing removed from hole // 1344 Drillers take water break
1352	Mix Another Batch of Grout - 200 gallons water & 7 bags grout & pump in well pull drive casing - a total of 160 ft of 11 1/2" drive casing out of hole @ 1427. - Stage water Break
1440	Mix more grout & pump in hole - 200 gallons of water & 9 bags quick grout // 1452 - pull drive casing, last 40 ft in hole // 1501 all drive casing out of hole
1503	add 1 bag bentonite, tagged grout at 70ft bgs -
1517	Mix more grout - 200 gallons of water & 8 bags Quick grout pump in well annulus - add 1 bag bentonite chips tag top of grout 29.8 ft bgs
	- site clean up while grout settles // 1547 forrest off site to get a bag of Quick Gel. - Set up to mix Portland Cement
1552	tag bentonite - 32.3 ft bgs. // 1608 Forrest back w/ Quick Gel
1610	Set up to mix portland cement

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Love Andress
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 3 of 4

Reviewed by: _____ Initials: _____ Reviewed date: _____

DATE: 2/2/19

4. WORK PERFORMED (Continued)

- 1611 tagged GROUT w/ bentonite on top: 31.0 ft bgs
- 1615 Mixing Batch of portland cement:
 water 110 gallons
- Quikrete Portland cement - type I/II (50 lb bags) 20 bags
~~Bond Quick Gel~~ NO Quick Gel added, Residual bentonite from grout was in tub & thickened w/ the cement nicely - pump in well
- 1630 Clean out grout tub, pump, & hoses - pump wash out into 2 - 55 gallon drums
 Labeled "Concrete Wash out" one with 50 gallons & one with 55 gallons
- 1647 Scrammy on site
 - Labels on drums removed
 - site clean up // 1700 Carlos Montoya off site
- 1720 Cascade off site - Lane scans paperwork & emails to Bernie
- 1730 Lane Address off site

[Handwritten signature]
 2/2/19

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 *4 of 4*

Reviewed by: _____ Initials: _____ Reviewed date: _____

ROLE: Geologist

DATE: 2-2-19

WEATHER: 50s; mostly clear

WELL ID: KAFB-106247

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Mike McVay</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>James Due / Gabe Sallee</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

JM

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- Met on site - H&S briefing
- Drilled to 396 ft bgs - logged to 386 ft bgs
- Installed casing to 390 ft bgs
- Visitors: none
- IDW: 247-1 (5 yd³)

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Met on site - H&S briefing: discussed uneven surfaces; slips-trip-falls; awareness/communication; hydration</u>
<u>0710</u>	<u>Equipment warmup + site setup - 0740 drilling ops. continued</u>
<u>0805</u>	<u>Core run 306-316' out - 0850 Core run 316-326' out</u>

ROLE: SSHO

DATE: 2/3/19

WEATHER: 41°F, feels like 37°F, 69% humidity, partly cloudy, wind compass SE, bar 29.52"

1. ONSITE PERSONNEL (Including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Lane Andress</u>	EA - Site Health and Safety Office
<u>Forrest Chattin</u>	<u>Cascade - Lead Driller</u>
<u>Matt Sanchez</u>	<u>Cascade - Driller Helper</u>
<u>Sibert Leslie</u>	<u>Cascade - Driller Helper</u>

2. OPERATING EQUIPMENT trucks, trailers, forklift, pressure washer, PID

Team #1	Team #2	Spare
YSI Professional Plus 15K101398 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005 <input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006 <input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

H&S Brief
Demolition from KAFB-10657 - Reduce boundary, secure well
Recon drive casing & Rig
demobilize pipe truck, rig, & trailer w/ well building
materials to BFF yard (V1/V2 location)

* IDW - Baker tank at Zoo Park laydown yard - ~5,200+ gallons
of decon water. "V2 - Decon"

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0800 Meet on site - Cascade took compressor to laydown yard earlier
0820 - H&S Brief
- demobilize from site in Bullhead Park - KAFB -
10657 - Load & secure trucks

DQCR Page 1 of 2 log 4

Reviewed by: _____ Initials: _____ Reviewed date: _____

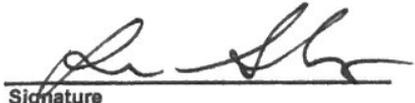
DATE: 2/3/19

4. WORK PERFORMED (Continued)	
0830	hydrate chip zone ^{about} deep well (pentonite seal) by adding 40 gallons of water to shallow well.
	- continue site breakdown & de mob
0840	Max Dawnon Rig - Load & secure truck & trailer
	- pick up any small trash on ground in & around site
0909	- Move rig off secondary containment to roll up pad
	- secure wells w/ trash bag & duct tape - casing jacks still on wells
0921	Move to Zia Laydarn yard w/ trucks & trailer
	rig on site - site boundary flagging secured -
0939	Lane Arrives at Zia Park Laydarn yard on KAFB -
	want for Cascade - going off contractor gate - dropping
1007	Cascade on site at Zia Laydarn yard.
	Matt S. unloads pipe truck w/ forklift & Forrest & Sibert
	go to get rig at 57 // 1033 ^{Sibert} Forrest back on site w/ pickup truck
	set up pressure washer on Visquene - finish unloading pipe truck -
1040	Forrest back on site w/ Rig // 1051 drain down pad water
	directly into Baker tank on site, minimal silt was removed
	Approximately 5000+ gallons in Baker tank -
1105	Forrest off site to Home Depot for Supplies - Matt & Sibert: Decon activities - wearing Tyvek for Rain Gear
1116	Bernie B calls to check in // 1207 Forrest back on site.
	Drillers take a break for Lunch. // 1228 Lunch over - Resume decon
1332	- Discuss well pad w/ Bernie B - he said it should be

trailer out
KAFB-10651
w/ BFP

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 2 of 4

Reviewed by: _____ Initials: _____ Reviewed date: _____

DATE: 2/3/19

4. WORK PERFORMED (Continued)

	smaller than 4' x 4' per city's request - he said he discussed w/ Bryan Nydask of Cascade it should be a 12" vault in a 30" x 30" x 10" pad. - Lane let Forrest know, he said he will need to get new boards for frames - he has 8" wide boards & needs 10" boards -
1408	Forrest to Home Depot for 10" Boards - continuing decon -
1430	1444 Pressure washer ran out of fuel - stop decon & begin stabbing pipe // 1448 Forrest back on site - refuel pressure washer // 1449 Resume decon -
1501	- Call in Hot Work to KAFB Fire Watch to cut rebar for well pads - Forrest decided it would be better to cut cut them tomorrow on site as we build the well pads than now // 1515 called KAFB fire watch to cancel the hot work -
1522	finish Decon - Drain off Decon pad (partially) into Baker tank - ~5200 gallons in Baker tank - Clean Bentenite off Decon pad // 1543 Sibert decon's rig, Forrest's Matt to SF to get last pallet of equipment from site.
1637	1437 Complete Rig decon & clean up decon hoses/pumps/etc
1652	1447 Forrest & Matt back - Everything moved from SF to BFF staging area (V1/V2) & Exclusion zone closed down to well Area for SF in park
1653	Begin stabbing 9 5/8" drive casing with drill stem/pipe - winterize pressure washer // 1707 - Load 200 ft 9 5/8" Drive casing on pipe truck (w/ drill stem inside them) & bit

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
 Name _____

[Signature]
 Signature _____

EA Engineering, Science and Technology Inc., PBC

DQCR Page ~~2 of 2~~ 3 of 4

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

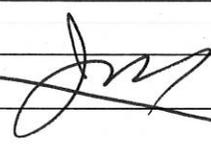
ROLE: Geologist

DATE: 2-3-19

WEATHER: low SO₂; partly cloudy

WELL ID: KAFB-106247

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>Bernie Boekisch</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>James Due / Gabe Sallee</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT <u>See individual forms</u>	
	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
—	<u>Met on site - H&S briefing</u>
—	<u>Drilled to 434 ft bgs</u>
—	<u>Installed casing 435 to ft bgs</u>
—	<u>LOGGED TO 435 FT BGS</u>
—	<u>IDW: 247-1 ($\frac{5.5}{30}$ yd³)</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0650</u>	<u>Joshua M. on site - 0705 Drillers on site - 0715 Bernie B. on site with more core boxes - 0745 H&S briefing: discussed diligence; uneven surfaces; slips-trips-falls</u>
<u>0750</u>	<u>drilling ops. continued - 0830 Core run 396-406' out</u>

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

ROLE: SSHO

DATE: 2/4/19

WEATHER: 33°F feels like 32°F, 73% humidity, wind 7 mph E, Barometer 29.78" ↓

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>Low Andress</u>	EA - Site Health and Safety Office
<u>Forrest Chatten</u>	<u>Cascade</u>
<u>Matt Sanchez</u>	<u>Cascade</u>
<u>Sibert Leslie</u>	<u>Cascade</u>

2. OPERATING EQUIPMENT <u>Forklift, Jackhammer, cement mixer, saws, generator</u>			
Team #1	Team #2	Spare	
YSI Professional Plus 15K101398 <input type="checkbox"/>	YSI Professional Plus 15K101396 <input type="checkbox"/>	YSI Professional Plus 15L100541 <input type="checkbox"/>	
Wh0003	Wh0001	Wh0002	
MiniRAE 3000 592-915778 <input type="checkbox"/>	MiniRAE 3000 592-915790 <input type="checkbox"/>	MiniRAE 3000 592-915579 <input type="checkbox"/>	
Wh0005	Wh0004	Wh0006	
Hach 2100Q 15100C045034 <input type="checkbox"/>	Hach 2100Q 15100C044633 <input type="checkbox"/>	Hach 2100Q 15100C045025 <input type="checkbox"/>	
Wh0008	Wh0009	Wh0007	
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

HOS Brief
Dug out ^{city water} well pad that was damaged & set New form for inspection
 - set well pad for city water meter/valve
 - set well pad for KAFB-10657
 - Demolish form Bullhead park
 - Set up on KAFB-10651 in BFF Area

* NO IDW on site

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 met on site at Bullhead Park KAFB-10657
0705 Health & Safety Brief
0715 set up exclusion zone of cones & flagging around city/park water well pad that was cracked by

DQCR Page 1 of 2 lay 4

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 2/4/19

4. WORK PERFORMED (Continued)	
	Cascade drilling over it - dig at cracked concrete after breaking apart w/ Jack Hammer - set well form (4" x 2" boards) & Rebar
0826	-Bernie B. on site to inspect -  he okay it to mix & pour concrete - Forrest and Bernie look at S7 & discuss well pad.
0844	Mix & pour small Batch concrete: ### ### ~ 2 bags concrete (60lb bags) ^{concrete mix} (High strength) ~ 3-4 gallons of water ~ 1/2 shovel ^{1/2} shovel of quikrete portland cement (TYPE I/II)
0914	Smoothing at concrete pad - secure wet pad area & pallets of concrete pieces w/ flagging & cones -
0930	Mobilize to set well pad at KAFB-10657
0937	Remove casing Jacks from S7 - plastic bag over wells intact & un-tamped with
0948	Saw cut wood form & Rebar, dig at well pad: 30" x 30" x 10" w/ a 12" Round flush mount vault, per city request. // 1014 done cutting rebar - beginning 30 min fire watch - assembly rebar frames for well pad
1019	Forrest goes to finish concrete down at water meter/box pad. - Matt & Silas digging at well pad (10" deep) area.
1047	well pad dug - cut well casings down below grade - Deep well is to Southeast Shallow well is to the S Northwest

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Law Andress
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 2 of 4

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring - 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 2/4/19

4. WORK PERFORMED (Continued)

	Each well is labeled w/ S for Shallow & D for Deep on PVC and J-plugs.
1104	Firewatch over - no fires - set well pad 1" below grade & well vault lid level w/ grade - J-plugs "ears" hit top of vault lid - cut down a little more to get vault & bleed from w/ re-bar ready to pour & fill in gaps around well frame - // 1132 Ready to pour second well pad for KAFB-10657 - call Bernie B to come inspect well.
1140	Resecure flagging around water well vault Bernie B on site to inspect well pad - ok to pour // 1147 Bernie B off site.
1150	begin pouring concrete, same mix as before - slightly less water - batches: III // → 7.5 batches
1210	finish adding concrete, work concrete pad smooth around well vault - re-work well vault for water valve
1230	Drillers Break for Lunch // 1255 Lunch over - site/area clean-up - shovel up dirt from well pad hole & then spread & put in trash bags to take off site - then spread remainder around well -
1321	Reduce boundary at water valve well pad to 4 traffic panels & flagging -
1352	Reduce boundary around S7 to several traffic panels & flagging - Cascade Mobilizes to Sea Park Laydown Yard - 51 feet w/ pipe truck to get water at "Fire Station 2" on base

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Love Address
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 3 of 4

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 2/4/19

4. WORK PERFORMED (Continued)

1406	Arrive at 21A Park laydown - unload trailer of well pad building materials & empty hopper of trash from drilling S7
1426	Head to S7 to get traffic cones & jacket & move to S1 in BFF. //1557 cones & jacket picked up - pick up sand bag ramp at entrance to park that cascade drove on - (ramp made w/ sand bags to protect parking bumper) - head to BFF & split ^{put} bag down to dump hopper of sand. //1531 Arrive @ BFF & (V1/V2) equipment & rig staging area.
1535	begin to set up at KAFB-106S1 - lane to -246 to get labels for soil roll off at S1 - wind has picked up to 17 mph w/ gust up to 20+ mph
1602	- set up secondary containment for rig & rig over hole organize tools & work areas //1418 Next up.
1626	hook up cyclone hose to hammer
1636	Head to get ^{air compressor} generator (staged at V1/V2) w/ flashlight - set up secondary containment under air compressor
1647	Rig off - traffic cones/pods set up around equipment //1650 goto 21A laydown to get 1 3/4" in bit //1658 load & secure bit on truck //1706 head back to S1 w/ pipe truck & bit
1713	Arrive at BFF & KAFB-106S1, back pipe truck up to rig & refuel rig for tomorrow AND compressor //1730 cascade off site
1740	Lane A off site <u>2-4-19</u>

5. CONTRACTOR'S VERIFICATION: certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 4 of 4

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 2-4-19

WEATHER: low 60s; breezy afternoon

WELL ID: KAFB-106247

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Bernie Backish	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Roger Rodriguez	Cascade - Lead Driller
James Due/Gabe Sallee	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

<i>JM</i>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	Met on site: H&S briefing
-	Drilled to 476 f bgs
-	Installed casing to 476 f bgs
-	Visitors: NONE
-	IDW: 247-1 (7.5 yd ³)

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0645	Joshua M. on site - 0655 drillers on site - 0700 drillers start rig (warm up) - 0715 Bernie B. on site
0725	H&S briefing - 0730 drillers began setting up for drilling ops.
0810	Core run 435-441' out - 0905 Core run by 441-450' out <i>JM</i>

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring - 62599DM01
Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 2/5/11

WEATHER: S9 Mostly Cloudy

Well# KAFB-10651

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bernie Bohrsz	EA - Site Manager/Supervisor
Lane Anders	EA - Site Health and Safety Office
Carlos Matney	EA Geologist
Forest Chatten	Cascade - Driller
Matthew Chatten/Robert Lesite	Cascade - Driller's helpers

2. OPERATING EQUIPMENT			
Team #1	Team #2	Spare	
YSI Professional Plus 15K101398 Wh0003 <input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001 <input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002 <input type="checkbox"/>	
MiniRAE 3000 592-915778 Wh0005 <input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004 <input type="checkbox"/>	MiniRAE 3000 592-91579 Wh0006 <input type="checkbox"/>	
Hach 2100Q 15100C045034 Wh0008 <input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009 <input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007 <input type="checkbox"/>	
Solinst Water Level Meter 253054 <input type="checkbox"/>	Solinst Water Level Meter 253053 <input type="checkbox"/>	Solinst Water Level Meter 253056 <input type="checkbox"/>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Operating Equipment - Forklift, Arch Drilling Rig, PIPE/WATER TRUCK
 Drilled to 220' bgs
 8cy IDW soil in Roll off #51-3

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0700	EA and Cascade onsite, conducted safety meeting
0734	Started Drilling @ KAFB-10651
0918	100' bgs has been reached
0946	Cyclone on Arch Rig has become plugged with cuttings, Driller's

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring - 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 2/5/19

4. WORK PERFORMED (Continued)	
	need to clear blockage before drilling can resume
1:00	Broke for water // 11:05 Back from water break
1:35	Earthmover onsite to relevel Lane Address 45 5540
11:00	Reached 200 bgs
11:15	Broke for water // 11:20 Back from water break
11:21	Lane Address offsite and started tripping out Drill Rod to prepare for 9 5/8 casing
4:40	All Drill Rod and Drill Bit out of hole, started tripping in Drill Bit and Drill Rod for 9 5/8 casing
12:14	Left Well KAFB-10651 and headed to laydown yard
12:16	Arrived at laydown yard and broke for lunch
12:45	Back from lunch
12:46	Drillers headed back to KAFB-10651 to pick up forgotten T12 to screw together pipe
13:00	Drillers back from well KAFB-10651 and started screwing together pipe
14:45	Leaving laydown yard and headed to KAFB-10651 w 9 5/8 casing
14:53	Arrived @ KAFB-10651 and broke for water break
15:08	Back from water break, started tripping in 9 5/8 casing
16:17	headed to the laydown yard to pick up 10' length of Drill Rod.
16:28	Arrived at laydown yard. // 16:24 Left laydown yard, headed back to KAFB-10651 // 16:33 Arrived at Well KAFB-10651
15:05	Drilling resumed // 17:30 17:30 Drilling stopped for night drop trailer at laydown yard - fuel rig & compressor

1745
Earlles M
off site
source site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andrews
Name


Signature

1800
Cascade done
working (on phone)
1810 Lane off site
2/5/19

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

ROLE: Geologist

DATE: 2-5-19

WEATHER: high 50s; partly cloudy; breezy afternoon

WELL ID: KAFB-106247

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>Lane Address</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Roger Rodriguez</u>	Cascade - Lead Driller
<u>James Due / Gabe Saltee</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT <u>see individual forms</u>	
<u>JM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	<u>Met on site: H&S Briefing</u>
-	<u>Drilled to 4 bgs</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0645</u>	<u>Joshua M. on site - 0700 drillers on site - Lane A. on site</u>
<u>0720</u>	<u>H&S Briefing; discussed slips-trips-falls; pinch points; overhead hazards; heavy lifting; awareness/communication; hydration</u>
<u>0740</u>	<u>Equipment warm-up + drillers replace monkey clamp for tripping rod in/out</u>

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report -- Non-Construction

ROLE: SSHO
 @0715 WEATHER: 35°F, feels like 29°F, humidity 67%
 wind from SE, Barometer 29.6" ↓ - clear

DATE: 2/6/19
 WELL ID: NA - Pica Park (Landscape)

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Lane Andrews	EA - Site Health and Safety Office
Roger Rodriguez	Cascade - Lead Driller
Sumesic' Duvé	Driller helper
Gabe Sallee	Driller helper

2. OPERATING EQUIPMENT

Pressure washer, forklift, crane in box truck
 for drive casing, trash pump

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- Health & Safety Brief
- Decantinate Sonic Rig & take off site
- Decan Sonic drive casing & core barrels - load all Sonic tools & equipment to dump from entire BFF site

~~***~~ IDW: Baker Tank "VZ-Decon" with ~5400 gallons of decon water

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

- 0700 Meet on site - warm up equipment
- 0710 Health & Safety Brief
- 0715 Set up to decon. // 0745 Begin Decan of rig // 0800
 Matt Cain w/ Cascade on site to pick up rig after decon.

Reviewed by: _____ Initials: _____ Reviewed date: _____

DATE: 2/6/19

4. WORK PERFORMED (Continued)	
0827	Rig decontaminated, drain fresh water tank for transit. pump off decon pad into Baker Tank on site "V2-Decon"
0830	Begin Decon of Sonic drive casing, & loading clean casing into ^{same} Box Truck
0838	Matt Cain w/ Sonic Rig off site - Roger following to bring Matt back after drop off at a repair shop for maintenance. - continue decon
0938	Matt C & Roger back on site - // 0943 Matt Cain w/ site - Water Break
0943	Resume decon // 1015 Decon complete - drain cube - tainer of potable water for decon (~1/16 of container) & load on to trailer for transport - clean up yards load ^{equipment &} various materials for transport back to Cascade. // 1037 - Cascade to get more water - decon not finished - they emptied container because bottom 1/16 had algae growing in it. - wind has increased to 15mph S. // 1057 Cascade back w/ water & stage container in decon area - Cascade to take trailer to Truman Yard & then will break for lunch - leave to SI to check in w/ Earl Morse & ARCH crew - crew went to get gas, then breaking for lunch // 1115 Break for lunch.
1257	Return from lunch // 1308 Cascade on site & Bonnie IS on site // 1308 ^{Bonnie off site} Set up to Decon - *** Weather: 38°F feels like 28°F, 61% humidity wind 20 mph w, barometer 29.64" // 1313 Resume decon of remaining Drive casing - // 1345 finish decon, sewee Baker tank V2 Decon w/ ~5400 gallons of decon water - Break down decon pressure washers hoses - load greater on trailer w/ rest of decon eq up next w/ hopper & start securing load Load Box truck w/ remaining Sonic gear - hook up trailer to Box truck - Cascade will stage it at Truman Yard until this DOT hrs reset
1426	- Cascade off site
 2/6/19	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
Name


Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring - 62599DM01
 Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 2/6/19

WEATHER: 47°F Sunny & Windy

Well: KAFB-10651

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Boesch	EA - Site Manager/Supervisor
Earl Morse / Lane Anderson	EA - Site Health and Safety Office
Subot Loric / Matthew Sandberg	Cascade - Diller's Helpers
Forest Christian	Cascade - Diller
Carlos Montfort	EA - Geologist

2. OPERATING EQUIPMENT

Team #1		Team #2		Spare	
YSI Professional Plus 15K101398 Wh0003	<input type="checkbox"/>	YSI Professional Plus 15K101396 Wh0001	<input type="checkbox"/>	YSI Professional Plus 15L100541 Wh0002	<input type="checkbox"/>
MiniRAE 3000 592-915778 Wh0005	<input type="checkbox"/>	MiniRAE 3000 592-915790 Wh0004	<input type="checkbox"/>	MiniRAE 3000 592-915579 Wh0006	<input type="checkbox"/>
Hach 2100Q 15100C045034 Wh0008	<input type="checkbox"/>	Hach 2100Q 15100C044633 Wh0009	<input type="checkbox"/>	Hach 2100Q 15100C045025 Wh0007	<input type="checkbox"/>
Solinst Water Level Meter 253054	<input type="checkbox"/>	Solinst Water Level Meter 253053	<input type="checkbox"/>	Solinst Water Level Meter 253056	<input type="checkbox"/>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

2. Operating Equipment - Fork Lift, Arch Drilling Rig, pipe/water truck
3. Daily Summary - H&S Meeting
 - * ~15cy of IDW soil in Roll off #S1-3
 - 6 cy of IDW soil in Roll off #S1-4 (4cy dry, 2cy wet)
 - Reached TD 495' hrs

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	EA and Cascade onsite, conducted H&S meeting
0710	Diller's changed out Diamond Bits on Front table before drilling
0735	Drilling Resumed

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 2/6/19

4. WORK PERFORMED (Continued)

0928	Drilled to 300 ft. bgs and Brake for a water Brake
0915	Resumed Drilling
0945	Matt Cain onsite // 0952 Matt Cain offsite
1029	Drilled to 380' bgs.
1100	Drilled to 420' bgs, Drillers offsite headed to get Fuel for rig.
1115	Broke for lunch // 1258 Back from lunch
1200	Act ^{com} pick onsite to pick up roll off #51-3 which had risk of IDW soil.
1246	Back from lunch, Resumed Drilling
1405	Reached TD 495' bgs, started clean out of hole, started ^{cm} clean out
1430	Clean out of hole complete starting to trip Drill Rod out
1433	Stopped tripping out Rod to Reveal Arch Rig
1448	Finished Rebuilding and started to ^{cm} Trip at Drill Rod
1515	Finished Tripping at Drill Rod // 1519 Earl Moore offsite, Lane Address ^{assigned} to position
1532	C. McIntyre offsite // 1542 Dump last hopper in roll off 51-3 51-4 for ² 1 cubic yards of soil (4 dry / 2 wet) // 1549 Secure pipe truck - Move to ^{219 PK} Laydman yard -
1555	Arrive at ^{219 PK} Laydman Yard - unload drill stem/pipe from pipe truck, Forrest to get anti freeze for winterizing // 1619 Load pvc well casing on truck & secure load // 1634 Forrest back on site // 1637 - return to S1, pick up extra PVC well casing w/ trailer stayed at V1/V2 - set up to run wells in tomorrow morning - it is too windy ^{now} / secure well head at casing hammer
1706	more compressor are ^{to KAFB-10658} to stay at V1/V2, secure site boundaries
1720	Cascade off site // 1725 Lane A off site

* @ 1644 wind is 24 mph

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: Geologist
 WEATHER: 42° - Mostly sunny

DATE: 2/7/14
 WELL ID: KAFB 10651

1. ONSITE PERSONNEL (Including subcontractors and government employees)	
Name	Organization
Berare Bochnig	EA - Site Manager/Supervisor
Line Anderson	EA - Site Health and Safety Office
Carlos Montoya	EA Geologist
Forest Challen	Cascade - ⁱⁿ Driller
Mathew Sanchez/Sibol Ladre	Cascade - Drillers Helper

2. OPERATING EQUIPMENT

Arch Aug Pipe Jacks, Forklift, Pipe/Water Truck

3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

HHS Meeting

Set wells in KAFB-10651

Deep ~~Shallow~~ well to ~~489~~ ⁴⁴⁵ ft bgs - sand to ~~445~~ ⁴⁴⁵ hydrated bentonite to ~~442~~ ⁴⁴⁰ ft bgs

Shallow ~~well~~ well to 440 ft bgs

Sand to 411 ft bgs

Bentonite chips to 377 ft bgs

No IDW generated today

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 EA and Cascade on site, conducted safety meeting

0717 Started site setup to construct wells. #0759 - Run in 1st (Deep well) - 40 ft 0.010 slot ^{screen} schedule 80 PVC w/ 2 ft Schedule 80 sump & flush end cap - //0839 tag TD on deep well - add 7 ft stack up

0800

DQCR Page ~~2~~ ³

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 2/7/19

4. WORK PERFORMED (Continued)

0853	Dillers take warm up/water break // 0908 Resume work prepare to set filter pack & bentonite seal // 0918 next down set up casing trucks, next up - move in sand & bentonite on pallets
1000	Kylian Robinson & Ben Holt from EA next to site gauging a monitoring well & will gauge on in site -
1010	approx 1.5 ft slough came up in drive casing - use ~100 gallons water to flush at, tag gun & raising drive casing - falling at added 2 bags sand to keep it from flung back when it falls at
1036	Kylian & Ben off site - Plug fell out, adding sand as filter pack #10/20 Pioneer brand ^{concrete} silica sand
1043	Remove 10' 9 5/8" drive casing -
1112	Removed 10' 9 5/8" drive casing
1120	Water Break // 1130 Resume work // 1146 Remove 10' drive casing
1209	Remove 10' drive casing // 1219 Drillers Break for lunch // 1300 lunch over - Resume adding filter pack to deep well. // 1312 remove 10' drive casing
1325	filter pack on deep KAFB-10651 to 445 ft bgs - 52 1/2 bags - add bentonite chips for seal (3/8" uncoated chips) Remove 5 ft drive casing - Bentonite chips to 442 ft bgs - 3 bags prepare to set shallow well -
1350	AAA pumping service arrive to Service pit - A-party and to take three wheels away
1403	AAA pumping offsite // 1407 Set shallow well in KAFB-10651 - 25 ft 0.010 sizer screen - schedule 80 PVC // 1441 tag well at 44 d. 3 ft above ^{at} top of casing (~4 ft) - adding 2 ft ^{stick up} casing for stick up of 4.3 ft above gravel - well is 440 ft bgs
1444	Forrest to lay down yard for 2 ft of casing

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Core Address
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page ~~2 of 2~~ 2 of 3

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report -- Non-Construction

DATE: 2/7/19

4. WORK PERFORMED (Continued)

1513

1504	Deep well pulled up so that bottom of screen is at 445 ft bgs
1505	Begin adding the rest of bentonite seal between wells
1530	Bottoms @ 440 ft bgs - (4.5 bags bentonite chips begin adding 10/20 silica sand // 1552 pull 5 ft drive casing - add sand
1535	Remove 5 ft drive casing, retension wells - tag sand (432.2 ft bgs) to resume adding sand - // 1550 remove 5 ft drive casing + drillers take water break // 1608 Resume work - stop resume adding sand // 1620
	pull 5 ft drive casing, retension wells tag sand at 423 ft bgs
	Add sand - remove 5 ft drive casing, retension wells, tag sand at 417.6 ft bgs
1639	pull 5 ft drive casing - retension wells, tag sand at 413 ft bgs - add sand pull up drive casing tag sand at 411 ft bgs (17 bags sand)
1646	Begin adding bentonite chips // 1651 remove 5 ft drive casing retension wells, tag bentonite at 408.5 ft bgs - add more chips
1659	pull 5 ft drive casing up - add amp // 1664 1702 remove 10 ft drive casing // 1708 hydrate lower bentonite seal through simultaneous well with 10 gallons of water // 1710 tag top of bentonite at 404 ft bgs 399 ft bgs // 1719 remove 10 ft drive casing, retension wells, tag bentonite 387.5 ft bgs, add bentonite chips, pull 10 ft drive casing - retension wells - tag bentonite at 377.5 ft bgs. secure well w/ raised drive casing 8 ft above ground and a slip cap over drive casing. whenever drift trapped to drive casing - // 1750 close main site & site clean up for break - secure site - take fork lift to hardpan yard -
1820	casualty of site
1830	Low A of site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Low Address
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 3 of 3

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report -- Non-Construction

ROLE: Geologist

DATE: 2-12-19

WEATHER: high 40s; clear sky

WELL ID: KAFB-106S1

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>Lane Address</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Forest Chaffin</u>	Cascade - Lead Driller
<u>Matt Sanchez / Sibant Leslie</u>	Cascade - Driller's Helpers
2. OPERATING EQUIPMENT <u>see individual forms</u>	
<i>JM</i>	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	<u>Met on site - H&S briefing</u>
-	<u>Grout installed to ~ 50 ft</u>
-	<u>IDW: NONE on site</u>
-	<u>Visitors: ACT, 2M</u>
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0645</u>	<u>Drillers + Joshua M. on site - drillers warm up rig + get laydown to get fork lift</u>
<u>0655</u>	<u>Lane A. onsite - 0710 Drillers on site w/ fork lift</u>
<u>0715</u>	<u>H&S briefing: discussed spotter use; walk arounds before moving any equipment; overhead haz.; rotation/lifting/pinch points</u>

1 of 2 DQCR Page *4 of 2* *2/13/19*

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 2-12-19

4. WORK PERFORMED (Continued)	
0740	Drillers + Lane A. offsite to laydown yard to offload 9 5/8" casing and upload grouting materials - 0805 drillers on site w/empty pipe truck + grout materials
0820	drillers position pipe truck for loading 9 5/8" casing while grouting
0830	drillers began pulling 9 5/8" casing - casing pulled + wells under tension - drillers position grout equipment/prepare for grouting ops. - drillers also tape absorbent pads to known leaks on forklift to minimize/mitigate any oil leaks to ground
0925	drillers add ~100 gal. water downhole to hydrate top lift of seal chips + add cushion for grout falling downhole - 0930 drillers mix batch #1 (200 gal + 10 bags)
0935	batch #1 downhole - 1012 driller's helper brings forklift to VI/V2 site to unload well materials delivered by 2M - drillers take water break during offload
1025	Materials offloaded - 1030 2M departed BFF - forklift back @ S1 site w/more grout
1035	drillers mix batch #2 (200 gal + 10 bags) - 1040 batch #2 downhole - drillers remove casing
1045	Bernie B. on site - 1105 Bernie B. offsite - 1110 drillers on water break
1120	drillers off water break - began mixing batch #3 (100 gal + 5 bags) - 1125 batch #3 downhole - drillers began tripping out remaining 9 5/8" casing - 1220 9 5/8" casing out
1225	drillers on lunch - 1300 drillers off lunch - 1310 drillers bring 9 5/8" casing to laydown yard + ref. fill pipe truck w/water - Lane A. followed drillers
1345	ACT + Earl M. on site to remove S1 rolloff + deliver S8-2 rolloff
1400	ACT + Earl M. off site - 1415 Cascade + Lane A. on site - drillers prep for 11 3/4" casing pull + grout
1445	drillers mix batch #4 (200 gal + 10 bags) - 1450 batch #4 downhole - 1500 batch #5 (200 gal + 10 bags)
1502	batch #5 downhole - 1520 60' of 11 3/4" casing tripped out - 1525 batch #6 (200 gal + 8 bags)
1520	batch #6 downhole - 1550 60' of 11 3/4" casing tripped out - drillers take water break
1608	batch #7 (200 gal + 7 bags) - 1620 batch #7 downhole - 1645 11 3/4" casing tripped out
1700	Wells secured - site cleanup/prepare to move casing to laydown yard
1722	mobile ^{arrup} arrup at laydown yard - began loading 9 5/8" drive casing on a trailer for Jason // 1730 Joshua Messenger off site // 1749 Cascade off site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andrew
 Name


 Signature

1758 Lane A
 off site

 2/12/19

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: SSHO

DATE: 2/13/19

00721

WEATHER: overcast, 27°F, feels like 20°F, humidity 36%
wind 5 mph E, barometer 29.95"

WELL ID: KAFB-10651

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Lane Andress	EA - Site Health and Safety Office
Joshua Messinger	EA - Geologist
Forrest Chaffin	Cascade-head Driller
Matt Sanchez/Sibert Leslie	Cascade Drillers helpers

2. OPERATING EQUIPMENT

Drill rig, casing jacks, forklift, grout pump, pressure washer
 pipe/water truck, PID

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- Health & Safety Brief
- Installed grout to 46 ft
- Installed bentonite chips to 30 ft
- Installed cement to 16 ft
- IDW: NONE

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 Meet on Site at EA Park laydown yard, H&S brief
 - Unload pipe truck of drive casing from KAFB-10651
 - drain clear water from concrete wash at drums into decan pad
 - Load drums on forklift/pallet - mobilize to BFF's KAFB-10651

0740 Josh M. on site

DQCR Page 1 of 3

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 2/13/19

4. WORK PERFORMED (Continued)

0800	Arrive at KAFB-10651 - 0815 driller adds 1 bag of chips downhole	
0825	- follows tag deep well to ensure integrity maintained during grouting down = 498.5 ft long - perfect! - 5 well = 444.2 ft long - perfect!	1 chips
	Grout top = 1125 ft bgs - 0850 batch #8 (200 gal + 10 bags) - 0853 #8 downhole	
0855	batch #9 (200 gal + 9 bags) - 0900 batch #9 downhole - 0905 batch #10 (100 gal + 1 bag) m	
0905	driller adds 2 bags of chips for measurement to grout - grout = 37 ft bgs	2 chips
0920	grout = 46 ft bgs - driller add 15 bags of chips downhole - Chips = 30 ft bgs driller hydrates chips w/ ~ 40 gal. water - drillers prep to mix cement	
0935	Cement batch mix (100 gal + 20 bags) - Bernie B. onsite for SSIT	
0940	Cement downhole <u>+ 1/2 bag QUIK-682</u> cement top ~ 20 ft bgs - settling - Lane A. off site - 0945 driller adds 1 bag of chips downhole for tag	
	top of cement = 26 ft bgs - 0950 batch #2 of cement mixing	
1000	batch #2 cement downhole - 1005 driller adds 1 bag chips for tag cement ~ 16 ft bgs - 1015 driller off site to laydown yard to look for more cement - 1042 driller back w/ trailer - driller discusses w/ EA that he will bail deep well to ensure that from cement didn't compromise wells. He will let cement settle and chip to 20' to bypass void @ 25'	
1055	Driller up - no signs of cement	
1115	JM OFF SITE. CREW CLEANING UP SITE. WILL DECON REST OF DAY. WILL COME BACK TOMORROW TO COMPLETE GROUTING.	
1125	LA ON SITE // 1132 Mast down // 1130 Bernie B off site concrete wash out - ~ 50 gallons in one labeled 55 gal drum and ~ 30 gallons in another labeled 55 gal drum	
1153	Forrest a Mast off site to take rig to laydown yard - Sibert L. continues site clean up // 1200 Forrest & Matt Back // 1210 Break for lunch, Forrest to rent a pressure washer - // 1240 Lunch over	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
Name


Signature

EA Engineering, Science and Technology Inc., PBC

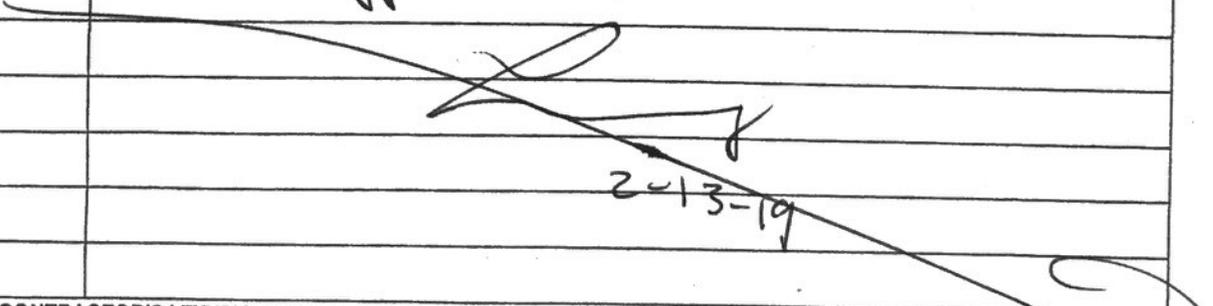
DQCR Page 2 of 2 2013

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 2/13¹³/19

4. WORK PERFORMED (Continued)

	Resume site clean up // 1300 begin moving equipment over to next well -58
1315	Remove casing jacks from well KATB-10651 // 1400 Forrest back on site
	cleanup BFF lot of dirt & debris around drilling area
1420	cut down wells below grade & secure w/ J-plugs & steel plate - "S" & "D" written on PVC on each well for shallow & deep wells - there was a notable petroleum odor from wells after cutting - // 1445 prepare to head to Laydon yard for decon. // 1456 arrive at Bluefork Laydon yard Cascade changes oil & air filters on drill rig under their SWPP - rig used on the decon pad and Visqrene was also under the rig on top of the decon pad - all spills were contained in the oil pan - used oil will be taken off site tonight by Forrest & recycled at Autzone.
1622	Rig maintenance complete - remove & discard Visqrene & begin rig decon. // 1708 Rig decon complete - winterize pressure washer from freezing & build secondary containment for pressure washer units & decon mud / concrete washat drums on pallets
1735	Cascade off site
1745	Lane A off site
	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andross
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 3/3

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 2-14-19

WEATHER: 48-50°F; partly cloudy
breeze 5-15 mph

WELL ID: KAFB-10658

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Lane Andress</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Forrest Chatterin</u>	Cascade - Lead Driller
<u>Sibert Leslie / Matt Sanchez</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

[Handwritten signature]

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- Met on site - H&S briefing
 - Decontamination of Drive Casing, Load & stab pipe
 - Set up to ream & set KAFB-10658
 - Drill & Set 1 1/2" casing to 75 ft bgs
- IDW: ~10 gallons soil cuttings secured in driller's hopper for night

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

- 0700 Met at laydown yard - H&S briefing: discussed injection/pressure haz.; overhead haz.; pinch points; dust/noise - PPE usage
- 0720 Begin draining down pad, Josh M to BFP trailer
- 0740 Set up to decon drive casing // 0800 Begin decon & loading 1 1/2" drive casing onto pipe truck (200 ft)

DQCR Page 1 of 2
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Reviewed by: _____

Initials: _____

Reviewed date: _____

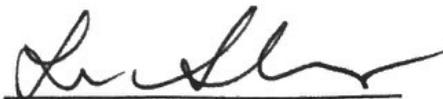
Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 2/14/19

4. WORK PERFORMED (Continued)	
0803	Josh M on site with additional forms // 0820 Josh M off site & begin decon of drill rod/stem // 0840 decon drill bits/stems
0847	Decon 9 5/8" drive casing // 1023 decon done, break down pressure washer/decon system // 1046 Forrest off site to take pressure washer back to rental facility - Matt & Sibert screw together pipe/drive casing into 20 ft lengths - // 1130 drillers take water break // 1135 resume screwing drive casing together -
~1200	Matt Cain of Cascade drops off a trailer at Zia PE laydown yard ~ 1215 Matt Cain off site. Forrest back on site. // 1209 Drillers Break for lunch // 1240 lunch over - continue screwing pipe together // 1305 stab 9 5/8" pipe w/ drill rods
1327	Stab 1 1/2" pipe on pipe truck. // 1349 - mobilize to KAFB-10658 w/ rig, forklift & hoppers // 1458 setting up on 58 - rig on secondary containment - checked KAFB-10651, still secure under steel plate & traffic barriers & flagging - // 1406 Mast up // 1415 Joshua M on site - set up exclusion zone // 1420 Sibert & Forrest to get pipe truck // 1450 Exclusion zone set up, pipe truck back // 1458 Begin to over drill w/ 1 1/2" drive casing - it is raining.
1527	Set up air compressor on secondary containment & hook up to rig - warm up compressor - discuss safety concerns getting "plug" harness back on pipe truck after attaching a joint of casing to drill string - Matt will get it on the deck of the pipe truck for Sibert -
1538	Resume drilling // 1615 - plug in casing/cyclone hose trying to break it free // 1705, plug is not breaking free -

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Love Andress
Name


Signature

EA Engineering, Science and Technology Inc., PBC

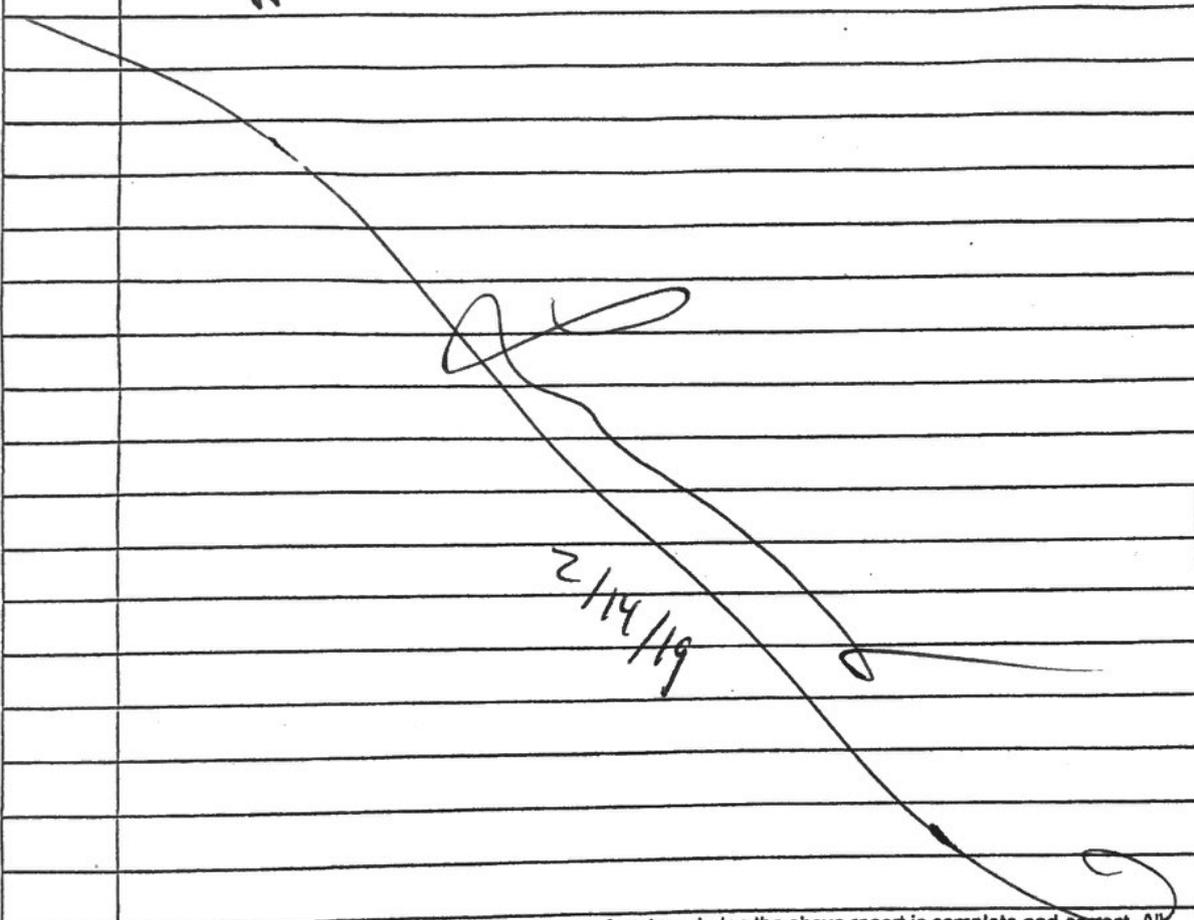
DQCR Page 2 of 2 - 243

Reviewed by: _____

Initials: _____

Reviewed date: _____

DATE: 2/14/19

4. WORK PERFORMED (Continued)	
1708	stop work for the night - ~10 gallons of drill cuttings secured in drillers hopper under cyclone for the night (w/ plastic sheeting)
1715	Joshua M off site - fuel air compressor & Rig - site clean up
1740	Cascade done working on site - Forrest making phone calls & Lane scans notes & forms
1750	Lane off site
	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

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DQCR Page 2 of 2

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 2/15/19

WEATHER: 58°F Mostly Cloudy

WELL ID: KAFB-10658

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie Bochish	EA - Site Manager/Supervisor
Lane Andrews	EA - Site Health and Safety Office
Carlos Montoya	EA - Geologist
Forest Chatten / Mark Green	Cascade - Driller
Matt Cain / Mathew Sanchez	Cascade - Driller's Helper
Sibert Leslie	Cascade - Driller's Helper

2. OPERATING EQUIPMENT

Fork lift, Arch Drilling Rig, Pipe/Water Truck

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

	H & S meeting
	8 cy IDW soil in Roll off # 58-2
	Drilled to 200 ft bgs

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Cascade and EA onsite, conducted Safety meeting
0715	Driller continued to trouble shoot cause of plug in hose leading to cyclone by blowing the plug out use compressed air
	- No success

DQCR Page 1 of 3

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 2/15/19

4. WORK PERFORMED (Continued)	
0720	Drillers begin to remove hose from drill rig
0752	Forest and Mark offsite head to laydown yard to retrieve transmittance to use to unplug hose
0800	Matt Cain and Matthew Sanchez offsite
0853	Drillers take a water break, plug in hose still has not been resolved.
0900	Back from water break // 0905 Drillers are unable to unplug hose they will attempt to attach hose back on to the discharge hose ^{connects} at the bottom of the hammer and flush water through the hose to free plug
0936	Drillers successfully remove plug from hose, they will continue to run air through hose for a while to dry off the inside and take a water break before resuming to drill
0944	Drilling resumed // Matt Cain ^{on} and 1052 Matt Cain and Matthew Sanchez back onsite with pressure washer
1045	Another plug has lodged, this time in the cyclone, drillers must stop drilling to free up the plug
1110	Mark Green offsite // 1120 Matt Cain offsite
1130	While trying to free the plug in cyclone the cyclone swing arm mount detached a ^{cm} crack is ^{is} separated from the rig. The swing arm will be removed and the cyclone will be chained to the rig and all supporting bracket mount will be inspected before drilling can resume due to safety concerns
1154	Drillers have inspected mounts with no signs of wear and cyclone has been chained to rig so that it will not move.
1200	Broke for lunch

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lase Address
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page ~~262~~ 2 of 3

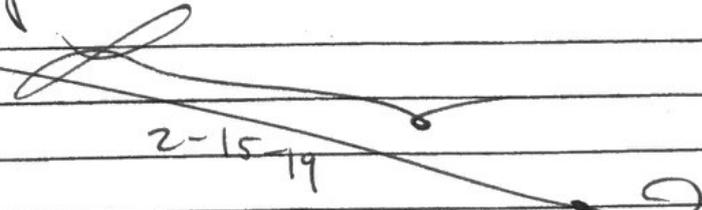
Reviewed by: Appendix B

Initials:
Page 389 of 438

Reviewed date:

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 2/15/19

4. WORK PERFORMED (Continued)	
1241	Back from lunch, Drilling Resumed, Mark Green back onsite
1326	Another plug has formed in the cyclone, Drillers are trying to work through it
1407	After several attempts to free plug went unsuccessful, Drillers need to Remove the hose connecting the cyclone from the hammer to try to free clog
1424	Matt Cain and Sheppard Fortz onsite
1435	Clog cleared Drilling Resumed //1502 Matt Cain offsite
1555	Drilled to 200' with 1 1/4" casing, and started pulling out Drill Rod
1630	Drillers Healed to lay down yard to pick up 9 5/8" casing
1631	Carlos M off site to get hot work Permit Renewed
1635	Arrive at Fin PK laydown yard - unload 1 1/2" bit - Load stabbed 9 5/8" drive casing (300 ft) and 9 5/8" drive casing (200 ft)
1705	Carlos M drops off New Hot Work permit - good until 3/15/19 and leaves. //1708 drive casing Loaded & Load Secured
1715	Return to S8 //1722 Arrive at KARS-10658 - secure site & Roll off w/ EDW soil - ~8 yds in roll off "S8-2"
1736	Cascade off site
1740	Lane A off site
 2-15-19	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name: Lane Address Signature: [Signature]

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 ⁴⁴ 3 of 3

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 2-16-19

WEATHER: 50s; breezy-windy
mostly sunny

WELL ID: KAFB-10658

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Lane Address</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Forrest Chatter</u>	Cascade - Lead Driller
<u>Matt Sanchez / Gilbert Leslie</u>	Cascade - Driller's Helpers
<u>Shenandoah Partz</u>	Cascade - Driller's Helper

2. OPERATING EQUIPMENT see individual forms

<u>JRM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

<u>-</u>	<u>Met on site - H&S briefing</u>
<u>-</u>	<u>Installed casing to 500 ft (TD) for ARCH rig</u>
<u>-</u>	<u>Visitors: NONE</u>
<u>-</u>	<u>IDW: S8-2 (15 yd³); S8-3 (8 yd³)</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Met on site - H&S briefing: discussed pinch points/hand placement, PPE - dust/moise; lifting - proper; overhead haz; spotter use & walk arounds before any equip. movement</u>
<u>0910</u>	<u>drillers warm up rig, prep piping on pipe truck & position equip. for drilling ops.</u>

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report -- Non-Construction

ROLE: Geologist

DATE: 2/17/19

WEATHER: _____

WELL ID: KAFB-10658

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bernie Bozhich	EA - Site Manager/Supervisor
Luca Andress	EA - Site Health and Safety Office
Carlos Montoya	EA - Geologist
Forest Chutkan	Cascade - Driller
Matthew Sanchez/Sibut Lishe	Cascade - Driller's helper
Sheradiah Pariz	Cascade - Driller's Helper

2. OPERATING EQUIPMENT
Arche Rig, PIPE TRUCK, Forklift

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the the public and governmental employees, and problems encountered and remedies applied)	
	H+S meeting
	Set up 1st well @ 443' bgs
	1st Sand Pack wins @ 444.3' bgs
	1st Bentonite Seal @ 444' bgs
	2nd Well hung and Seal is up to 442.2' bgs

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0700	EA and Cascade onsite, conducted H+S meeting
0720	Started tripping out drill Rod
0757	Completed tripping out drill Rod, Bernie Bozhich onsite
0802	Driller's need to Refuel Rig, also started setting up to run

DQCR Page 1 of 2 143

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report -- Non-Construction

DATE: 2/17/19

4. WORK PERFORMED (Continued)	
	First Well
0824	Finished Refueling
0831	Tagged Bottom of hole @ 496' bgs
0835	Mark Green of Cascade Drilling on site with well building materials
0903	Mark Green, Shenandoah Pultz and Benne Rochush offsite, headed to lay down yard
0918	Finished run first Well, starting to setup ^{cm} casing Tracks to start building the first Well
1019	Casing Tracks are set 11.1035 Added 3 bags of sand and pulled 5' of casing
1057	Added nine bags of sand and started pulling ^{10' cm} of casing
1131	Added 10 bags of 10/20 Sand and pulled 10' casing
1140	cm Started to snow on site, Drillers stopped building well to cover well Building Materials (Weather 28°F, 13 mph winds (SW))
1150	Break for lunch
1221	Drillers back from lunch, warming up rig
1228	Resumed pulling drive casing
1242	Added 8 bags of sand, ^{cm} pulled
1243	Added 6 Bags of Sand, pulled 10' of Casing
1305	Pulled 10' of Casing // 1321 Added 5 bags of sand and pulled 5' of drive casing // 1338 Started Swabbing Well, and tagged sand @ 498.5 bgs
1345	Drillers added 4 bags of 3/8" Bentonite chips to KAAB-10651
1420	Retrieved 5' of casing and added 1 Bag of Bentonite chips
1440	Plug has developed in drive casing Drillers are assembling a tremmie line to seal down hole in hopes to free up plug

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name Carlos Martinez

Signature 

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 2013

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report -- Non-Construction

DATE: 2-17-19

4. WORK PERFORMED (Continued)	
1511	Driller ^{added} 11 Bags of 3/8" Bentonite Chipp's, top of chips is @ 2' hys. in KAFB-10651
1539	Plug has been freed, well building activity resumed
1550	Starting to run the 2nd well down hole
1656/1657	Finished running ⁱⁿ Hanging 2nd Well, Driller wants to use water ⁱⁿ coated pellets to build 1st Bentonite zone. Called Bernie Borchon to confirm approval, was approved
1706	Poured 1 5 Gallon Bucket of TR30 Bentonite Pellets from 448' hys to 444' hys
1708	Started Removing 5' Casing
1720	Added 4 bags of sand and tagged it @ 442.2' hys
1730	Started site Clean up // 1739 Carlos M off site
1740	Cascade off site
1745	Love A off site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Love Andress
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2 ^{PK} 343

Reviewed by: _____

Initials: _____

Reviewed date: _____

ROLE: Geologist

DATE: 2-18-19

WEATHER: 40s; partly cloudy; breezy

WELL ID: KAFB-10658

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>Lane Andress</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Forrest Chatlin</u>	Cascade - Lead Driller
<u>Alatt Sanchez / Sibert Leslie / Shenandoah Portz</u>	Cascade - Driller's Helpers
<u>Mark Green</u>	Cascade - Supervisor

2. OPERATING EQUIPMENT <u>see individual forms</u>	
<u>JM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	<u>Met on site - H&S briefing</u>
-	<u>Installed shallow filter pack to 444.6 ft bgs</u>
-	<u>Installed shallow 30' seal to 384.7 ft bgs</u>
-	<u>Installed grout to 210 ft bgs</u>
-	<u>IDW: S8-2 (15 c.y.); S8-3 (8 c.y.)</u>
-	<u>Visitors: NONE</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0700</u>	<u>Met on site - H&S briefing: discussed dust (PPE); proper hand placement + proper lifting; spotter use; plan routes; pressure hoses - don't stand on hoses; slips-trips-falls (holes + uneven surfaces); and hydration</u>

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 2-18-19

4. WORK PERFORMED (Continued)

0805	tip of sand = 438 ft bgs - drillers add sand and pull casing
0820	top of sand = 433.6 ft bgs - drillers add sand + pull casing
0830	top of sand = 427.4 ft bgs - drillers add sand + pull casing
0850	top of sand = 421.3 ft bgs - drillers add sand - top of sand = 414.6 ft bgs drillers installed shallow filter pack to 414.6 ft bgs + add 1 bag of chips
0853	drillers continued to install upper seal - 0900 top of chips = 410 ft bgs
0915	chips installed to 410 ft bgs in 0915 called Bernie B. to get approval to do one total hydration of chips after seal installation - approval given - drillers began performing maintenance on cement mixer generator
0937	drillers continue to build screen - ⁰⁹⁵⁵ 389.1 top of chips = 389.1 ft bgs
1000	upper seal installed to 384.7 ft bgs - drillers prep to install grout
1055	drillers + Lane A. offsite to laydown yard to offload drill stem + 9 5/8" casing
1140	drillers + Lane A. on site w/emptied pipe truck
1155	Mark G. in Drillers on lunch break - 1240 drillers off lunch break
1300	drillers mix batch #1 of grout (in drillers hydrate chips w/100 gal. water
1305	drillers mix batch #1 of grout (200 gal + 10 bags) - 1312 batch #1 downhole
1315	drillers mix batch #2 (100 gal + 5 bags) - 1320 batch #2 downhole
1322	drillers began tripping out 9 5/8" casing - 1330 Mark G. mixes cement for SI wellpad
1350	8' 9 5/8" casing tripped out @ 58 - drillers on break - 1400 off water break
1401	drillers mix batch #3 (100 gal + 5 bags) - 1405 batch #4 downhole - 1410 drillers trip out 9 5/8" casing
1450	SI wellpad built - Mark G. waiting for concrete to dry a little before putting final aesthetic finishes on
1520	all 9 5/8" casing tripped out - drillers prep pipe truck to mob to laydown yard and prep casing jacks for 11 3/4" casing
1615	drillers mob to laydown yard to offload pipe truck + fill w/water - JM returning PID to BPF trailer
1700	Return to site to cover SI vault w/ concrete blanket & get water in water truck
1732	site secured Coocade off site // 1640 1740 Lane A off site.

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report -- Non-Construction

ROLE: Geologist

DATE: 2-19-19

WEATHER: Cloudy, light snow; mid 30s; breezy - windy

WELL ID: KAFB-10658

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Lane Address</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Forrest Chatten</u>	Cascade - Lead Driller
<u>Sibert Laskie/Matt Sanchez/Shenondach Portz</u>	Cascade - Driller's Helpers
<u>Mark Green</u>	Cascade - Supervisor

2. OPERATING EQUIPMENT see individual forms

<u>JM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Met on site - H&S briefing</u>
-	<u>Installed grout to 40 ft bgs</u>
-	<u>Installed ^{chips} cement to 30 ft bgs</u>
-	<u>Installed cement to 2 ft bgs</u>
-	<u>IDW: 58-2 (15 c.y.); 58-3 (8 c.y.); 3 Drums of concrete washout w/ 55 gal, 55 gal, & 30 gallons</u>
-	<u>Visitors: NONE</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0645</u>	<u>Cascade + Joshua M. on site - drillers inspect equipment and warm up vehicles - drillers clean up ^{any} site from last night's - morning's wind</u>
<u>0700</u>	<u>Lane A. on site - 0706 H&S briefing: discussed dust/noise - PPE, crush haz., overhead haz.; walkarounds/spotter use; cold weather; slip-trips-falls</u>

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report -- Non-Construction

DATE: 2-19-19

4. WORK PERFORMED (Continued)

0715	drillers prep to continue grouting - fix ball valves, thaw airlines, remove ice from grout tub
0730	Mark G. off site - 0805 driller + Matt S. off site to laydown yard to retrieve IR heater
0815	driller + Matt S. on site w/ IR heater + Mark G. onsite - heater positioned to thaw grouting system
0912	drillers mixing grout batch #4 (200 gal + 8 bags) - 0922 batch #4 downhole
0925	drillers mixing batch #5 (200 gal + 9 bags) - 0930 batch #5 downhole - 0935 driller began pulling 11 3/4" casing - 1008 10' 11 3/4" casing tripped out - drillers take water/warmth break
1019	drillers off break - 1022 batch #6 mixed (200 gal + 8 bags) - 1025 batch #6 downhole
1028	batch #7 mixed (200 gal + 7 bags) - 1032 batch #7 downhole
1035	drillers began pulling 11 3/4" casing - 1105 all 11 3/4" casing tripped out
1103	driller adds 1 bag of chips for grout tag = 65 ft bgs - drillers on water break
1115	Bernie B. onsite - 1130 drillers off water break - began mixing batch #8 (200 gal + 8 bags)
1138	batch #8 downhole - Bernie B. off site - 1145 drillers on lunch break
1225	drillers off lunch break - 1227 driller adds 2 bags of chips
1230	1240 grout installed to 93 ft bgs - 1240 batch #9 (200 gal + 6 bags) - 1242 batch #9 downhole
1245	driller adds 1 bag chips - grout installed to 58 ft bgs
1255	batch #10 (200 gal + 7 bags) - 1258 batch #10 downhole - 1300 1 bag chips added - grout installed to 27 ft bgs - 1305 Mark G. + Shenandoah P. off site
1307	drillers began cleaning up site while grout settles - 1340 driller inspects SI well pad - driller decides to keep cement blanket over pad for a couple more days to ensure cement cures fully - 1403 grout settled to ~35 ft bgs - drillers prep pipe truck to mob to laydown yard to off load 11 3/4" casing
1420	drillers + Lane A. off site to laydown yard - 1500 drillers + Lane A. onsite w/ empty pipe truck
1505	grout settled to 40 ft bgs - driller adds 8 bags of chips - top of chips = 30 ft bgs
1510	drillers prep to mix cement - 1513 drillers mixing cement (100 gal + 20 bags) ^{1/2 bag sm}
1525	Cement batch downhole - 1535 drillers conduct washout - washout placed in steel drums ^{Phoenix Cement TYPE 1/11/V}

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name: Lane Address Signature: 

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 3
JM

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 2-19-19

4. WORK PERFORMED (Continued)

- 1535 drillers conduct site tear down in prep to mob to laydown yard
- 1547 Derris down - cement to 2 ft bgs.
- 1610 Joshua M off site - Matt & Forrest take rig to laydown yard Sibert continues site clean up. // 1620 Matt & Forrest back on site - continue clean up - Reduce foot print of concrete blanket on S1 & secure w/ traffic cones & pallets of concrete bags.
- 1710 Cascade off site - will drop pipe truck at laydown yard Well secured w/ plastic sheeting & bags of grout & duct tape & screw on caps to prevent tapering or animals entering ~2.5 ft hole - casing jacks are still over hole & wells
- 1720 Lane A off site

[Large handwritten signature and date 2-19-19 across the bottom of the work performed section]

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

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Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: SSH0

DATE: 2-20-19

@ 0900 WEATHER: clear - partly cloudy, 23°F, feels like 14°F, wind 8 mph
humidity 63%, barometer 30.01" ↓

WELL ID: Zoo Park Laydown Yard

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Lane Anders</u>	EA - Site Health and Safety Officer
<u>Forrest Chalkin</u>	Cascade - Lead Driller
<u>Matt Sanchez / Sibert Leslie</u>	Cascade - Drillers Helpers
<u>Daniel Jones / Jerry Robinson</u>	Right Bit - repair men

2. OPERATING EQUIPMENT

Forklift, pressure washer/steam cleaner, ARCT rig (being repaired)
welder, torch cutter, water/pipe truck, generator, infrared heater

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Health & Safety Brief
Decontaminated all 9 5/8" & 1 1/2" drive casing, both bits, and all
drill rod.
- screwed together 70 ft 9 5/8" pipe

FDW: approx 6800 gallons in water tank - rolloff #: "VZ-Decon"

Site visitors: Right Bit ^{service} repair for cyclone swing arm
↳ Daniel Jones & Jerry Robinson
: 2M - Mike Benoit Terrero

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700 Met on site at Zoo Park Laydown Yard - H&S Brief

0720 Lane A goes w/ Forrest to escort Right Bit ^{service} repair men
in w/ their work truck to repair cyclone swing arm →
from trucking gate - // 0740 Arrive back on site - H&S brief

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Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report -- Non-Construction

DATE: 2-20-19

4. WORK PERFORMED (Continued)	
	with Right BIT employees, Daniel Jones and Jerry Ribisan
0748	Call in Hot Work for cutting & welding w/ KAFB Fire Control - working on draining frozen decan pad by using hot water from pressure washer
0758	begin work on rig at 3rd Park Landam Yard under Cascades SWPP.
0850	Can't get pressure washer to start - troubleshooting -
0925	Pressure washer is frozen - repair shop did not winterize it - Forrest & Matt to SB to pick up infrared heater and generator to try to thaw it out. - still working on rig repair
0945	forrest & Matt on site - use IR heater to thaw pressure washer lines
1015	pressure washers working // 1026 Began Decan of Drive casing -
1125	Repair of swing arm completed - & tested by Forrest
1130	Mast down - inspecting casing hammer jib line attachment/ pulley at top of mast & using fall protection
1225	Tib for casing hammer OK - Lane A escorts Right BIT off site in their vehicle - Forrest follows to bring Lane Back to site
1240	Return to site - out of water - Drillers break for lunch.
1315	Lunch over - drillers take pipe truck to get water. - Forrest inspecting Rig // 1326 Forrest to BFF area to get small trailer for screwing pipe together.
1335	pipe truck back w/ water // 1338 Forrest back w/ trailer
1348	Matt & Sibert leave w/ pipe truck to get water - when they went earlier the ball valve was found to be broken, so they returned & fixed it & redeployed for water

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andrew
Name


Signature

EA Engineering, Science and Technology Inc., PBC

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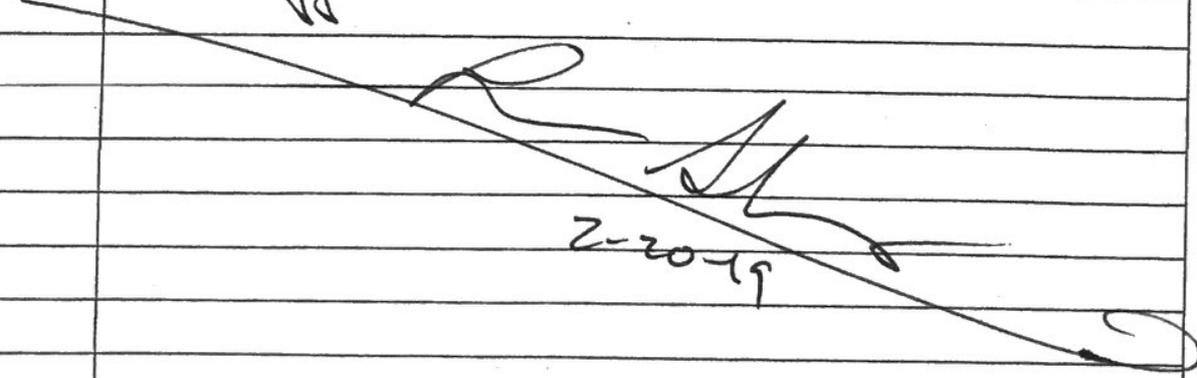
Reviewed by Appendix B

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Reviewed date:

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 2-20-19

4. WORK PERFORMED (Continued)	
1350	Lane A follows to make sure hydrant is okay at Fire station #2. - Everything is OK w/ hydrant // 1400 Return to Laydown
1418	Resume decan of drive casing & drill rod
1509	2M on site delivering ballards & steel for stickup on well completions // 1512 Decan Complete on Drill rod & Drive Casing // 1515 2M off site, pump off decan pad into Baker tank, Forrest inspecting jib line & taking photos for Bryan Nybaste of cascade - using fall protection
1545	begin decan of Rig - // 1602 called KAFB fire control and closed hot work for day, incl. 30-min fire watch.
1617	Rig decan complete, winterize pressure washer (w/ windshield washer fluid)
1639	Begin screwing pipe together into 20 ft sections.
17.30	70 ft 140 ft total (7 sections of 20 ft each) - drain trash pump used to pump off decan pad & site clean up - setup to stab pipe in morning
1758	Cascade done working for the day, Forrest on the phone.
1810	Lane A off site
	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page ~~2 of 2~~ 3 of 3

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
 Daily Quality Control Report - Non-Construction

ROLE: SSH0
 @0715

WEATHER: 28°F, feels like 23°F, wind 4 mph N
humidity 54%, barometer 29.86"

DATE: 2-21-19

WELL ID: KAFB-10C247

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Lane Andress	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Forrest Chatterin	Cascade - Lead Driller
Matt Sanchez/Sibert Leslie	Cascade - Drillers Helpers

2. OPERATING EQUIPMENT

Forklift, water/pipe truck, pickup truck, trailer, PID
 ARCT rig, air compressor

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Health & Safety Brief

- Installed 11 3/4" casing to 160 fbgp

Visitors: AAA, ACT

IDW: 247-2 (3.5 c.y.); 247-3 (0 c.y.)

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Meet on site at Zia Park Laydown Yard, HSS Brief
0715	Warm up equipment // 0723 begin staging /stabbing 9 5/8" down casing & Loading pipe truck
0730	Forrest to BFF to count materials for next well

DATE: 2-21-19

4. WORK PERFORMED (Continued)

0800	Forrest on site & runs to Home Depot for fresh bags - Matt & Sibert continue loading truck & spalling pipe.
0820	200 ft $9\frac{1}{8}$ " $1\frac{1}{2}$ " casing, stable w/ drill rod & bit set, cased onto ppe track & secured, load generator & Infrared heater on trailer
0809	AAA on site at KAFB-106247 servicing/moving portable toilet
0830	AAA off site - // 0834 AAA on site at 2nd PK Laydum
	servicing toilets // 0836 AAA off site -
0839	300 ft of $9\frac{5}{8}$ " drive casing stabilized & staged
0845	Mobilize to KAFB-106247 in BFF // 0850 Forrest on site, gets trailer
0857	Setting up a -247 & mixing supplies & equipment from 58
0943	Cascade to Laydum Yd to get rig - Label Roll off "247-2" for drill cuttings
0955	Cascade on site w/ Rig. // 0958 - 2M delivers some extra 10/20 silica sand & bentonite chips // 1002 - 2M off site
1055	Mast up on rig - set up site work areas
1100	set up for compressor at Both rig & Air compressor are on secondary containment
1110	Drillers break for Lunch - 1145 drillers off lunch + prep to install $11\frac{3}{4}$ " casing
1150	drillers began installing $11\frac{3}{4}$ " casing - 1315 Bernie B. on site - 1350 Bernie B. off site
1430	ACT on site to deliver 247-3 - 1446 ACT off site
1518	ACT on site - 1525 ACT off site - 1543 drillers began to disconnect cyclone hose to identify/remove plug - 1555 cyclone hose reattached + drilling continued
1615	drillers began disconnecting cyclone hose to unplug - 1635 drilling resumed
1650	driller informed EA that there's a possible 'boot' inside casing - drillers began tripping out bit - 1710 - boot located @ 120 ft logs - thickness unknown // 1717 Joshua M. offsite - Cascade performing

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andrews
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

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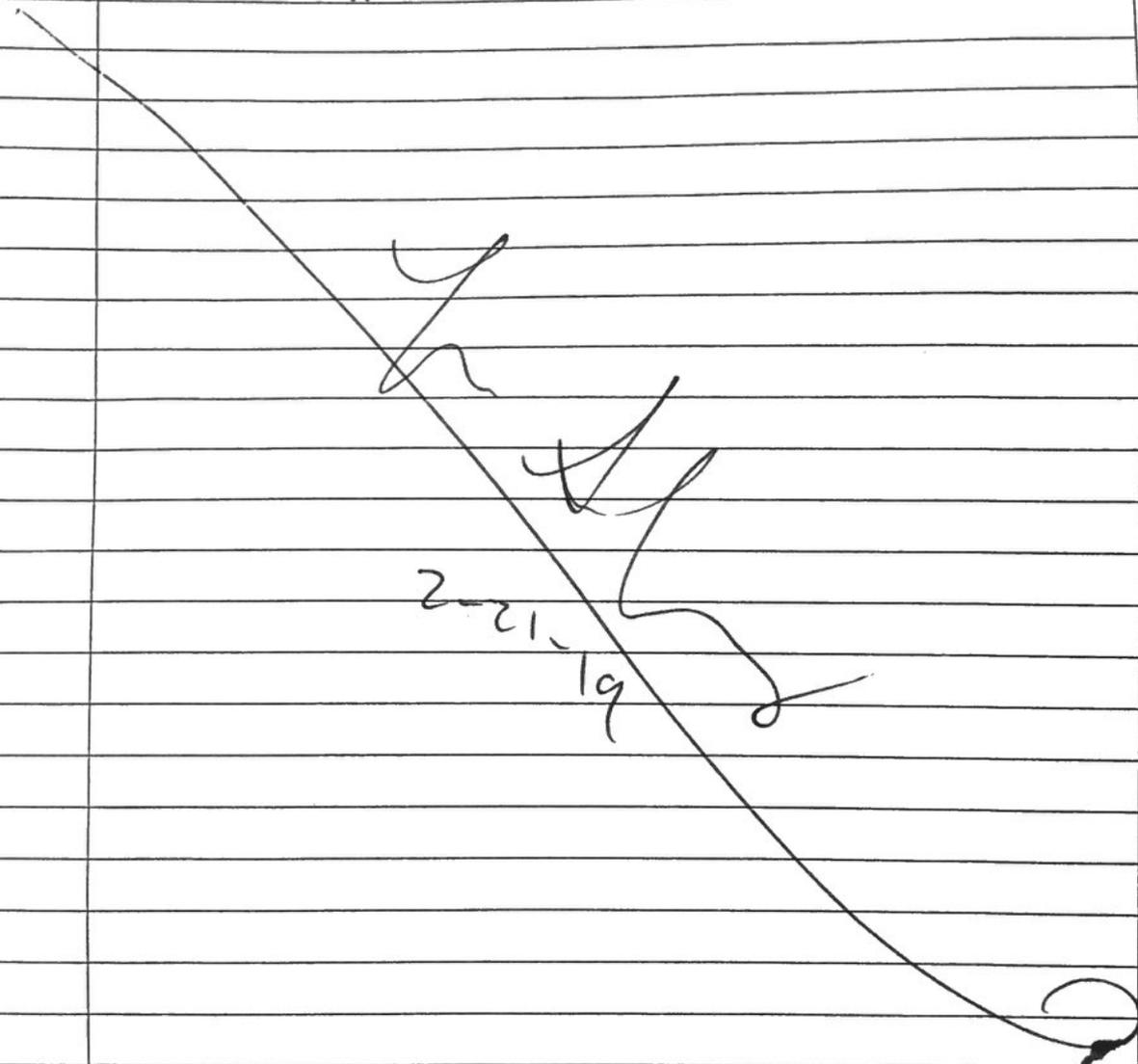
Reviewed by: Appendix B

Initials: Page 407 of 438

Reviewed date: _____

2-21-19

DATE: 2-22-19/14

4. WORK PERFORMED (Continued)	
	Site clean up for the Night // Dump ~ 3.5 yds of
	soil in roll off "247-2"
1754	Cascade off site
1804	Lane A off site
	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 3 ^{#1} 3 of 3

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring – 62735DM02

Daily Quality Control Report – Non-Construction

ROLE: Geologist

DATE: 2-22-19

WEATHER: Mostly Cloudy; mid 40s; breezy to windy

WELL ID: KAFB-106247

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Lane Andress</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Forrest Chattin</u>	Cascade - Lead Driller
<u>Siebert Deslie / Matt Sanchez</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

jm

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- Met on site - H&S briefing
- Cleared 'boot' / clog at 120 ft, bottom of 1 1/2" casing at 160 ft ^{logs}
- Load 9 5/8" drive casing & drill rod at laydown yard
- move drive casing & drill rod to site to complete hole after break.
- Visitors: Earl Morse (EA), Bernie Backlash (EA)
- IDW: - 247-2 w/ ~ 3.5 yds ^{#3} (3 yds is muddy water)
- 247-3 w/ ~ 2 yds muddy water

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0650	Cascade + EA on site - drillers inspect/warm equipment - driller asks EA to park PDVs further NW of rig while driller attempts to remove boot
0705	H&S briefing: discussed pinch points, overhead haz., dust/noise - PPE, dangers during boot extraction - stay clear, spotters, slips-trips-falls

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report -- Non-Construction

DATE: 2-22-19

4. WORK PERFORMED (Continued)

0730	drillers prep for boot extraction - EA personnel relocate in vehicles ~ 200 ft SW of borehole
0735	drillers began tripping bit to 155 ft - 0745 driller began boot extraction
0900	drillers trip bit out to see if boot is completely extracted - 0915 Earl M. on site
0925	bit tripped out - bit and ~ 5' of stem caked in soil - boot has been completely extracted - driller stated that he injected ~ 800 gallons of water to extract boot - drillers clean off stem + bit - Earl M. off site - 1030 drillers unload/offload 10 1/2" Kon Claw, drill stem, and 40' of 11 3/4" casing from pipe truck
1040	Bernie B. onsite to discuss boot + weather w/drillers - 1055 Bernie B. off site
1057	Drillers + Lane A. off site to 21A laydown yard - unload pipe // 1120 - Load stabilized 9 5/8" drive casing, load grout tub & equipment to grout onto trailer & secure 9 5/8" drive casing
1133	300 ft stabilized 9 5/8" drive casing loaded onto pipe/water truck - and 40 ft open onto truck - wind gusts extremely strong - wind 26 mph SW w/ gusts 40 mph - stable open 9 5/8" drive casing - // 1149 - Forrest off site w/ trailer & grout tub - continue loading 9 5/8" drive casing - // 1156 - a total of 500 ft 9 5/8" drive casing loaded (340 ft stabilized & 160 ft open) secure load - add 4 more 20' joint of Drive casing
1205	Forrest Back on site w/out trailer - Drillers take a break in Forrest's truck - secure pipe truck // 1245 head to drill site - unload 30 ft 9 5/8" drive casing & stage by Rig - secure IOW Roll offs: - 247-2 w/ ~ 3.5 yards (~ 3 yds muddy water) - 247-3 w/ ~ 2 yds muddy water
1335	well head secured w/ 5 gallon bucket, a New trash bag & duct tape - Refuel vehicles - clean up site for day - wind gusts 40+ mph too windy to set 9 5/8" drive casing - it will blow around -
1340	Sasha Messenger off site - Cascade saves site & covers contents, sand & concrete pallets
1352	cascade off site
1400	Lane A off site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

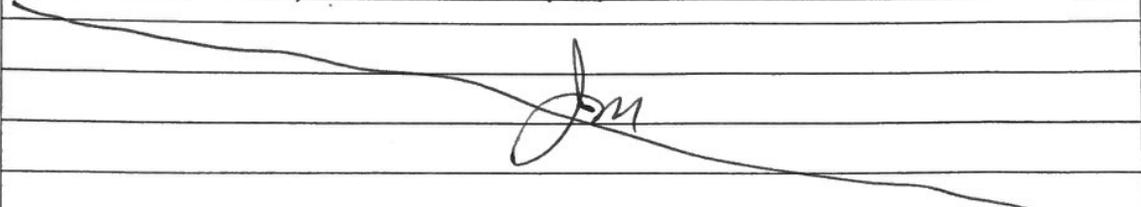
Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 2-25-19

WEATHER: low 50s, clear sky light breeze

WELL ID: KAFB-106247

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>Lane Andress</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Forrest Chaffin</u>	Cascade - Lead Driller
<u>Matt Sanchez / Matt Cain</u>	Cascade - Driller's Helper
2. OPERATING EQUIPMENT <u>see individual forms</u>	
	
3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	<u>Met on site - H&S briefing</u>
-	<u>Installed 9 5/8" casing to 155 # bgs</u>
-	<u>Visitors: NONE</u>
-	<u>IDW: 247-2 (5.5 c.y.) and 247-3 (5.5 c.y.)</u>
4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0700</u>	<u>Met on site - H&S briefing: discussed overhead huz, pinch points, rotation huz, heavy lifting, dust/noise - PPE, proper hand placement, spotter use - 0715 drillers warm up equipment + prep to continue drilling</u>
<u>0800</u>	<u>drillers began tripping in 9 5/8" casing - 0900 drillers installed 60' 9 5/8" casing</u>

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 2-25-19

4. WORK PERFORMED (Continued)	
	- driller informed EA that 11 3/4" casing still has a lot of clay in it and can't trip in 9 5/8" casing
	- driller stated that he is going to trip in a bit to remove out 11 3/4" casing to allow 9 5/8" casing to be tripped in. - 0915 drillers began tripping in bit to remove out casing
1028	Matt Cain on site as helper - 1120 10 1/2" Ken Claw tripped in to 160 ft bgs
1130	drillers began tripping out bit - 1150 driller could only trip bit out to 115 ft bgs
	- driller stated that another boot exists at this elevation - driller stated that he would attempt to clear by back-drilling after lunch - 1155 drillers on lunch break - 1235 drillers off lunch break - 1245 driller began injecting water downhole to flush out any soil - 1330 drillers began tripping out bit - driller stated ~ 360 gallons of water used to break up boot
1348	bit tripped out - clay caked around bit and up 3 ft of drill stem
1400	drillers began tripping bit back in to ensure borehole is cleared out
1455	bit tripped in - 1305 driller began injecting water again in hopes to slick up casing so when he cleans out (blows compressed air) the clays don't stick to inside of casing
1320	driller stops adding water - stated ~ 700 gallons of water added
1335	driller began tripping bit out - 1500 bit tripped out, minor clay coating around bottom of bit only
1625	driller began tripping in 9 5/8" casing - 1650 9 5/8" casing tripped in to 155 ft bgs
1704	Joshua M off site // 1712 Begin tripping in 9 5/8" Ken claw bit & drill rod
1719	Dump 3 yds of water mud into roll off 247-3 // 1733 - drill bit at 155 ft bgs - winterize rig - secure well head w/ casing hammer & trash bag - site clean up - secure roll off's
1800	Cascade off site
1810	Lane A off site
	2-25-19

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring – 62735DM02

Daily Quality Control Report – Non-Construction

ROLE: Geologist

DATE: 2-26-19

WEATHER: high 50s to 60°F; mostly clear w/ light breeze

WELL ID: KAFB-106247

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
<u>Lane Andress</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Forrest Chattin</u>	Cascade - Lead Driller
<u>Matt Sanchez / Siebert Leslie</u>	Cascade - Driller's Helpers
<u>Matt Cain</u>	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

<u>Jm</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	<u>Met on site - H&S briefing</u>
-	<u>drilled to 505 ft bgs - installed 9 5/8" casing to 505 ft bgs</u>
-	<u>deep well built + suspended</u>
-	<u>Visitors: ACT</u>
-	<u>IDW: 247-2 (9 c.y.), 247-3 (9 c.y.), 247-4 empty</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

<u>0700</u>	<u>Met on site - H&S briefing: discussed dust/noise - PPE, overhead haz, pinch points - proper hand/foot placement, spotter use + walk arounds, slips-trips-falls, hydration</u>
<u>0730</u>	<u>drilling ops. began - A20 drillers troubleshoot plugged cyclone hose</u>

Reviewed by: _____ Initials: _____ Reviewed date: _____

4. WORK PERFORMED (Continued)

DATE: 2-26-19

0928	drilling ops. resumed - 1200 drillers take lunch break
1245	drillers off lunch break - drilling continued
1320	ACT on site to deliver 247-4 (15 yd. hand top)
1332	ACT off site - 1338 Bernie B. on site
1342	Jane A. off site - 1405 Siebert D. + Matt C. off site w/ pipe truck for water
1420	drillers installed casing, drilled to TD = 505 ft bgs
1425	Siebert D. + Matt C. on site w/ pipe truck
1434	driller began injecting water for borehole cleanout
1500	borehole cleaned out - driller stated that $\approx 500^{540}$ gal. water used to clean out - ≈ 500 gallons flushed out
1510	drillers flooded borehole w/ ≈ 200 gallons of water
1520	drillers began tripping out bit + stem
1550	8 1/2" tricone bit + stem tripped out
1555	drillers prep site for well construction
1605	Jane A. onsite - 1615 Bernie B. off site
1630	drillers began building deep well
1700	deep well built - drillers send tagger down to verify total length and stick up height - total PVC length deep = 495.9 ft stick up length = 3.9 ft ags
1708	deep well suspended for the night
1715	site clean up - driller adds 1 bag of sand downhole - secure roll offs
1741	Cascade off site // 1743 Joshua Maff site
1755	Lane A off site

2-26-19

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report -- Non-Construction

ROLE: Geologist

DATE: 2-27-19

WEATHER: low 60s; high clouds; slight breeze

WELL ID: KAFB-106247

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>Dana Andress</u>	EA - Site Health and Safety Office
<u>Joshua Messenger</u>	EA - Geologist
<u>Forrest Chattin</u>	Cascade - Lead Driller
<u>Matt Sanchez/Siebert Leslie</u>	Cascade - Driller's Helpers
<u>Matt Cain</u>	Cascade - Driller's Helper

2. OPERATING EQUIPMENT <u>see individual forms</u>	
<u>JM</u>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	<u>Met on site - H&S briefing</u>
-	<u>Deep filter pack installed to 448 ft bgs</u>
-	<u>Deep (5') seal installed to 442.8 ft bgs</u>
-	<u>Shallow filter pack installed to ⁴¹³417.3 ft bgs</u>
-	<u>Shallow (30') seal installed to 378 ft bgs</u>
-	<u>VISITORS: NONE</u>
-	<u>IDW: 247-2 (9 c.y.), 247-3 (9 c.y.), 247-4 (empty)</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
<u>0645</u>	<u>Cascade + Joshua M. on site - drillers perform equipment inspections/checks and warm up equipment</u>
<u>0700</u>	<u>Dana A. on site - H&S briefing: discussed dust - PPE, proper lifting, rotating haz., overhead haz., pinch points, slips-trips-falls, hydration</u>

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report -- Non-Construction

DATE: 2-27-19

4. WORK PERFORMED (Continued)

0720	drillers prep site to build wells - ⁰⁷⁵⁵ casing jacks in place
0810	Rig positioned - 0825 derrick up - 0845 driller added 200 gallons downhole to ensure slough falls out of casing when he removes 10' casing - driller stated that there was \approx 9 ft of slough in casing
0855	drillers removed 10' casing - 0858 driller tags slough at 500 ft bgs - drillers began building well - 0922 sand = 487 ft bgs
0938	Sand = 477.7 ft bgs - 1005 Sand = 470.8 ft bgs
1020	Sand = 460.2 ft bgs - 1037 Sand = 453.4 ft bgs
1048	deep filterpack installed to 448 ft bgs w/47 bags of Pioneer 10/20 silica sand - drillers prep to run shallow well down and then install seal
1140	Shallow well built - logged for total length PVC = 442.2 ft total - drill adds a 5' blank that measures 4.8' which leaves 4' stickup for proper placement
1150	driller began installing 5' seal - 1158 driller installs seal to 442.8 ft bgs
1205	driller began installing shallow filter pack - 1210 drillers on lunch break
1250	drillers off lunch break - 1312 filter pack = 436.9 ft bgs
1325	filter pack = 433.2 ft bgs - 1337 filter pack = 428.3 ft bgs
1435	filter pack = 422.8 ft bgs - 1453 filter pack = 417.8 ft bgs
1458	shallow filter pack installed to 413 ft bgs (413 ft bgs)
1510	drillers began installing shallow (30') seal
1545	Bernie B. onsite - 1550 upper seal = 402.9 ft bgs - 1600 upper seal = 398.0 ft bgs - 1602 Bernie B. off site - 1615 upper seal = 391.8 ft bgs - 1630 upper seal installed to 378 ft bgs - drillers conduct site cleanup - 1658 driller hydrated upper seal with \approx 100 gallons of water // 1715 Joshua M off site - Refuel rig // 1740 Cascade done for day
1745	Lane A off site 2-27-19

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
Name


Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____ Initials: _____ Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist

DATE: 2-28-19

WEATHER: mid 60s; mostly sunny; light breeze

WELL ID: KAFB-106247

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Lane Adress	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist
Forrest Chatlin	Cascade - Lead Driller
Matt Cain / Matt Sanchez / Siebert Leslie	Cascade - Driller's Helpers

2. OPERATING EQUIPMENT see individual forms

<i>Jm</i>	

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

-	Met on site - H&S briefing
-	Installed grout to 40 ft bgs
-	Installed chips from 40 ft bgs to 30 ft bgs
-	IDW: 247-2 (9 c.y.); 247-3 (9 c.y.); 247-4 (EMPTY)
-	Installed cement to 2 ft bgs
-	Visitors: AAA

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0645	Joshua M. on site - 0655 Joshua M. escorted AAA into BFF to service restroom
0702	AAA off site - Lane A. on site - 0705 Joshua M + Lane A. to ZIA laydown yard
0708	Joshua M. + Lane A. @ ZIA laydown yard to meet drillers - 0710 H&S briefing: discussed dust-PIE, rotating and overhead haz., pinch points, slips-trips-falls, hydration

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 2-28-19

4. WORK PERFORMED (Continued)

0750	Cascade + EA on site - drillers prep to grout - 0855 driller adds ~100 gal. water downhole - 0900 drillers began mixing grout batch #1 (200 gal + 10 bags)
0905	batch #1 downhole - 0907 batch #2 (200 gal + 6 bags) - 0910 batch #2 downhole
0915	drillers began tripping out 9 5/8" casing - 1000 drillers tripped out 100' of casing - drillers take water break
1015	drillers off break - began mixing batch #3 (200 gal / 8 bags) - 1020 batch #3 downhole
1024	drillers mix batch #4 (200 gal / 9 bags) - 1028 batch #4 downhole - 1030 drillers began tripping out remaining 9 5/8" casing - 1040 Earl M. on site - 1100 Earl M. off site
1105	drillers on water break - 1118 Pete F. on site w/ hydrosorb - 1120 drillers off break
1145	hydrosorb spread over standing water in rolloffs - 1150 Pete F. off site - all 9 5/8" casing tripped out - drillers secure casing on pipe truck
1200	drillers mob to 21A laydown w/ pipe truck + forklift to drop off then take lunch
1330	EA + Cascade on site w/ empty pipe truck full of water - drillers prep to continue grouting + pulling 11 3/4" casing - 1415 driller adds ~100 gal. water downhole - 1418 drillers mix batch #5 (200 gal + 8 bags) - 1422 batch #5 downhole
1425	drillers mix batch #6 (100 gal + 4.5 bags) - 1426 batch #6 downhole - 1430 drillers began tripping out 11 3/4" casing - 1445 80' of 11 3/4" casing tripped out - drillers take water break - 1455 drillers off water break
1458	drillers mixed batch #7 (200 gal + 7.5 bags) - 1501 batch #7 downhole
1503	drillers mixed batch #8 (100 gal + 5 bags) - 1506 batch #8 downhole
1510	drillers began tripping out remaining 11 3/4" casing - 1525 remaining 11 3/4" casing tripped out
1528	drillers add 2 bags of chips to tag grout - grout = 130 ft bags - drillers try to locate more grout - 1537 driller located enough grout to install to 30'
1540	driller mixed batch #9 (200 gal + 8.5 bags) - 1543 batch #9 downhole
1546	driller mixed batch #10 (200 gal + 8 bags) - 1550 batch #10 downhole
1553	driller mixed batch #11 (100 gal + 4 bags) - 1555 batch #11 downhole
1600	drillers add 1 bag of chips - grout = 35 ft bags

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Name Lane Andrews

Signature 

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 3
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Reviewed by: _____ Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report -- Non-Construction

DATE: 2-28-19

4. WORK PERFORMED (Continued)	
1605	driller hydrated deep seal (5') with \approx 25 gallons of water
1615	drillers head to laydown yard for washout steel drums - Lane A. off site too
1635	drillers + Lane A. on site - 1637 grout = 40 # bags - driller locates chips to chip up to 30 # - 1645 driller added 10 bags of chips - driller hydrated chips w/ \approx 50 gallons of water - chips installed from 40 # bags to 30 # bags
1655	drillers mix cement (100 gal + 20 bags type 1/11/10 cement + 1/2 bag QUIKROUT)
1705	cement down hole - 1710 washout complete - site cleanup and secured wells for the night
1732	Joshua M off site - site cleaned up & secured
1755	Cascade off site
1810	Lane A off site
2-28-19	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
 Name

[Signature]
 Signature

EA Engineering, Science and Technology Inc., PBC

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 DQCR Page 2 of 2
 JM

Reviewed by: _____ Initials: _____

Reviewed date: _____

well pads
& decon

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
Daily Quality Control Report - Non-Construction

ROLE: SSH0

DATE: 3-1-19

0800 - overcast
WEATHER: 43°F, Feels like 38°F - wind 8 mph S
Humidity 51%, barometer 30.10" ↓

WELL ID: KAFB-10658
KAFB-106247

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Lane Andrews	EA - Site Health and Safety Office
Farrest Chatter	Cascade - Lead Driller
Matt Cain	Cascade - Driller
Siebert Leslie	Cascade - Driller helper
Matt Sanchez	Cascade - Driller helper

2. OPERATING EQUIPMENT

Water/pipe truck, truck, trailer, cement mixer, PID generator, pressure washer, decon pad, forklift

3. DAILY SUMMARY (Include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

Health & Safety Brief
Demob from KAFB-106247
Complete well pads for KAFB-10658 & KAFB-106247
Decontamination of drilling equipment
Visitors: ACT,
FDW: Roll off 247-2 on site w/ 10 yards of soil & mud - Baker Tank "VZ-Decon" w/ ~6000 gallons of water

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0700	Meet on Site - H&S Brief - Earl Morse on site for SSH0 on decon activities - Lane SSH0 for demob from KAFB-106247 & well pad building for KAFB-10658 & KAFB-106247
------	--

DATE: 3-1-19

4. WORK PERFORMED (Continued)	
0738	Must Down on rig - move rig off hole & site clean up for demob. - cement in KAFB-106247 @ ~8 ft bgs - topped off w/
0857	Demob to Zia Park laydown yard - pipe/water truck to get water ^{sent to Chris to 3 ft bgs} to laydown yard - rig & generator, truck & trailer off site w/ equipment - Earl Morse follows as SSHO to get water Lane follows to yard. // 0905 at laydown yard - empty trash into cascade roll off, unload trailer/truck - set up to decon
1006	Arrive at KAFB-10658 - prepare to set well pad // 1012 begin digging out well pad. - concrete shaft shrunk to 16 ft bgs - topped off to ~2.5 ft bgs - hydrate w/ 800 gallons of potable water // 1040 - water break // 1046 break over prepare to mix concrete - wells KAFB-10658 & KAFB-106247 are all marked shallow and deep on the well casings and on the 5-plug well plugs.
1050	Mixing concrete & taping off w/ concrete & stick up.
1146	Drillers break for lunch // 1225 Martin from ACT on site to pick up roll offs - // 1240 drillers back from lunch - Earl supervising roll-off pickup - Lane to Zia laydown to SSHO decon of drive casing - // 1246 - resume decon activities
1352	Bernie Bachsch on site - checks level of water in Baker Tank
1355	Bernie B off site - decon continuing
1400	call Earl Morse - well pad for KAFB-10658 complete - ACT was able to remove roll off "247-3" and the empty hard top bin off site, Cascade about to start well pad for KAFB-106247 - Decon at Zia laydown yard continues.
1530	all drive casing & drill rod decon - begin decon of Great tub & equipment

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
Name


Signature

EA Engineering, Science and Technology Inc., PBC

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Reviewed date: _____

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
 Daily Quality Control Report - Non-Construction

DATE: 3/1/19

4. WORK PERFORMED (Continued)

1637 pump off decon pad & decon hoppers
 1704 move drum of decon pad water to EA's ROW Yard
 & continue decon of MISC equipment (rig footer pads, tag line, etc...)
 1710 Decon Forklift
 1718 Matt Sanchez & Forrest Chatter at Eva Laydarn Yard
 - Button up site - well pad for KAFB-106247 complete
 1730 Cascade off site - Earl Morse called - wells
 are secured w/ combo locks. E. Morse off site.
 1740 Lane A off site

[Large diagonal scribble across the page]
 3-1-19

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Address
 Name

[Signature]
 Signature

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 DQCR Page 2 of 2

Reviewed by: Appendix B

Initials: Page 422 of 438

Reviewed date: _____

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Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 3-1-2019

4. WORK PERFORMED (Continued)	
1020	Decan pad water has hydraulic oil floating on water. Added absorbent pads to soak up as much as possible, will drum remaining water
1030	Drillers off to get water
1050	Drillers return, get drums/pallets for clean up of decan pad
1125	Start cleaning decan pad, pumping water into 55-gal drums, filled 4 drums + 1 pending. Moved to INOWyd.
1200	Brank for lunch
	Switch to 106247/58 well pad
1400	Finished 58 well pad, moved equipment to 106247
1430	brank, 1430 start on 247 pad
1530	Laying rebar and digging post holes
1600	Adding cement to pad form. Adding sand to well casing protection pipe
1640	Concrete in around ballards (4)
1700	Added Master locks to 58 and 247 well heads
1715	Cascade off site
1730	Lock EA yard, off-site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications above.

Earl Morse
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

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Kirtland AFB Bulk Fuels Facility Vadose Zone Coring - 62735DM02
Daily Quality Control Report - Non-Construction

ROLE: SSHO
 0730 - overcast
 WEATHER: 52°F - feels like 48°F, wind 9 mph SW
humidity 33%, barometer 30.06" ↓

DATE: 3-2-19
 WELL ID: Zia Park Laydown Yard

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
	EA - Site Manager/Supervisor
Lore Anders	EA - Site Health and Safety Office
Farrest Chatten	Lead Driller - Cascade
Matt Cain	Cascade - Driller
Matt Sanchez	Cascade - Drillers Helper
Sibert Leslie	Cascade - Drillers Helper
	C

2. OPERATING EQUIPMENT

Forklift, trucks, trailers, high pressure washer, generator pumps

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- Health & Safety Brief
- Decon all drilling equipment & vehicles & decon pad
- Stage materials for later pick up for demob
- clean out decon pad
- VISITORS - NONE
- IDW: - drums of decon mud generated -
 KAFB-VZDPMud-1, KAFB-VZDPMud-2, KAFB-VZDPMud-3
 KAFB-VZDPMud-4, and KAFB-VZDPMud-5
 with 55, 50, 55, 50, and 20 gallons respectively.
- Baker tank "VZ Decon" with ~8,000 gallons of decon water

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

- 0700 Met on site - H&S Brief - Demob & decon today.
- High winds expected ~ 1 pm.
- 0715 - warm up equipment, hook up trailers
- 0735 - Mast up. Remove discharge hose - Remove casing hammer

Kirtland AFB Bulk Fuels Facility GWTS Expansion/Monitoring -- 62599DM01
Daily Quality Control Report - Non-Construction

DATE: 3-2-19

4. WORK PERFORMED (Continued)	
0816	Mast down - staging/organizing materials in yard
0826	Rig on decan pad - decan Mast using fall protection, with mast down on rig // 0825 pick up remaining small equipment and supplies at -51, -247, and -58
0936	Check on Decan of rig - still in progress - return to -247
1036	Matt S & Sibert back to Laydum yard w/ trailer/truck & forklift - site is clean // 1044 - Matt C w/ trailer to Laydum - -247, -58, and -51 are clean of Cascades equipment & trash - Return to Laydum yard
1051	Rig still being decanned - organization and Laydum yard Clean-up.
1100	Drillers Break for Lunch // 1149 Drillers back from lunch Resume decan/demol activities // 1243 rig off decan pad. - Decan casing hammer, hopper, & tools
1349	Matt Cain all site w/ truck & trailer of well building supplies. - Decan trailer/bed, Decan pipe/water truck, organize & pack up equipment, pick up trash blown around in yard
1521	Clean Decan pad w/ pressure washer, - Dump water out of 3-55 gallon drums of concrete wash at - drums were left w/ residual solid concrete (50 gal, 45 gal, & 30 gal) & disposed of in Cascades Construction Debris roll-off without lids // 1609 - Clean solids out of decan pad - 5 drums of decan pad solids generated - see page 1 for details. # Locked in EA # Low yard
1650	Forrest Leak drive casing on pipe truck & secured - high winds arrived
1724	Site clean up - Baker tank "1/2 Decan has ~8,000 gal of decan water"
1800	Cascade off site - // 1815 Lane A off site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Love Andreas
Name

[Signature]
Signature

EA Engineering, Science and Technology Inc., PBC

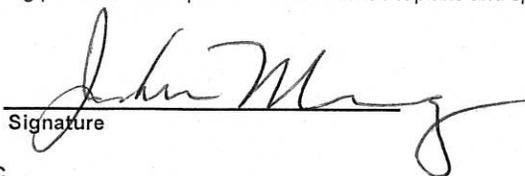
Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 3-4-19

4. WORK PERFORMED (Continued)	
0850	Cascade began surging well - 0905 surge completed - Cascade sets up to bail well - 0913 bailer deployed - 0918 bailer up - driller stated that 1.5 gal. came up - used this bail to calibrate fluid amount for future estimates and to ensure bailer stayed free during deployment/recovery. Initial bail will be taken next.
0920	Well development paused - High Mesa conducts quick well survey
0926	Initial readings taken - 0938 1 volume readings taken - 1004 2 volumes readings taken
1032	3 volumes readings taken - 1036 development stopped for High Mesa to level S1
1040	High Mesa off site - development cont - 1056 4 volumes readings taken
1110	5 volumes readings taken - 1142 6 volumes readings taken
1152	7 volumes readings taken - 1155 transferred waste into EA steel drum
1205	bailing continued - 1223 8 volumes readings taken
1235	9 volumes readings taken - 1310 10 volumes readings taken
1330	11 volumes readings taken - 1350 12 volumes readings taken
1418	13 volumes readings taken - 1420 site clean up
1450	site secure - movement to KAFB - 10658 SM - Cascade drops off trailer @ KAFB - 10658 for development tomorrow - 1455 Cascade escorted SM out of BFF
1500	Joshua M. conducted waste management
1512	2 55-gallon steel drums of development waste off loaded @ 21A SM day yard
1540	Joshua M. off site to downtown office

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Joshua Messenger
Name


Signature

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Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist - Well Developer

DATE: 5 MAR 19

WEATHER: low 60s - mostly sunny

WELL ID: KAFB-10658

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
Bernie B.	EA - Site Manager/Supervisor
Tyler Curley	EA - Site Health and Safety Office
Joshua Messenger	EA - Geologist/Developer
Christopher Scott	Cascade - Well Developer

2. OPERATING EQUIPMENT
YSI Pro Plus / Hatch 2100Q Turb. Meter

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)	
-	Met on site - H&S briefing
-	Completed well development on KAFB-10658
-	Equipment decon completed and set up completed on KAFB-106247
	

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)	
0630	Joshua M. on site - prep truck and calibrated equipment
0700	Escorted Cascade in BFF to site
0715	H&S briefing w/ Tyler Curley
0720	driller preps to decon bailer - 0730 decon complete - Cascade logs water + TD

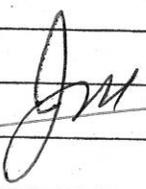
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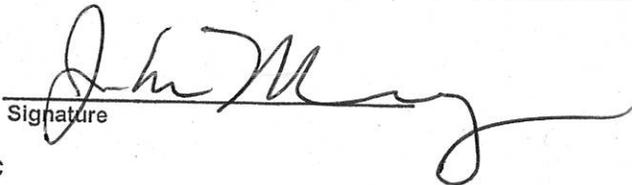
Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

DATE: 05 MAR 19

4. WORK PERFORMED (Continued)	
0745	Water = 476.12 ft ^{MRP} + TD = 491.42 ft ^{TOC} (measurements from TOC) ★ = d = 15.3 ft — 0755 Cascade began snubbing deep well — 0820 Snubbing completed - driller attached bailer for well development — 0830 bailer deployed for initial
0834	Initial readings taken — 0847 1 VOLUME readings taken — 0900 2 VOLUMES readings taken
0914	3 VOLUMES readings taken — 0932 4 VOLUMES readings taken — 0945 5 VOLUMES readings taken
	taken — 0958 6 VOLUMES readings taken — 1015 7 VOLUMES readings taken
1028	8 VOLUMES readings taken — 1056 9 VOLUMES readings taken — 1111 10 VOLUMES readings taken
	— 1122 11 VOLUMES readings taken — 1135 12 VOLUMES readings taken — 1141 Cascade on lunch break — 1210 Cascade off lunch break
1221	13 VOLUMES readings taken — 1233 14 VOLUMES readings taken
1252	15 VOLUMES readings taken — Final bail : well development completed — waste transfer + site clean up
1335	Cascade + EA off site — 1337 Cascade escorted out of BFF Cascade escorted to GWTS to fill trailer w/water
1340	Cascade + EA @ GWTS — 1348 Cascade escorted from GWTS to decon pad @ laydown yard — Cascade began decon of bailer, truck, and wrench line — 1418 decon completed
1422	EA escorted Cascade into BFF
1425	Cascade escorted to KAFB-106247 — Cascade began setting up for well development tomorrow
1450	Cascade escorted off site + out of BFF — Joshua M. to secure well development equipment, field trailer, and EA vehicles
	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Joshua Messenger
Name


Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02

Daily Quality Control Report - Non-Construction

ROLE: Geologist/Well Developer

DATE: 06 MAR 19

WEATHER: 70 °F; mostly sunny; winds 10-15 mph

WELL ID: KAFB-106247

1. ONSITE PERSONNEL (including subcontractors and government employees)

Name	Organization
Bernie B.	EA - Site Manager/Supervisor
Tyler Curley	EA - Site Health and Safety Office
Joshua Messinger	EA - Geologist/Developer
Christopher Scott	Cascade - Well Developer

2. OPERATING EQUIPMENT

YSI Pro Plus + Hatch 2100Q Turbidity Meter

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)

- Met on site - H&S briefing
 - Completed well development @ KAFB-106247

JM

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)

0630 Joshua M. on site - Prepped vehicle + calibrated meter
0645 Tyler C on site - 0700 Cascade on site @ trailer - 0705 Cascade escorted into BFF + to KAFB-106247 - site setup for developing ops. + H&S briefing
0735 Cascade tags well = 494.82' ice and water = 476.00' d = 18.82'

Reviewed by: _____ Initials: _____ Reviewed date: _____

10657 Development A

DATE: 3-7-2019

4. WORK PERFORMED (Continued)

0840	Completed swabbing, hooking up bailer
0845	1 st bailer up, collected Imhoff cone sample 70ml fine sand, 125ml silt
0850	Start bailing 1 st well volume
0915	2 nd well volume
0937	3 rd well volume
1000	well volume 5 reached
1030	Reached 50gal, Transfer water to drum on truck
1045	start bailing again
1100	Imhoff #2 @ 7 well volumes Fine sand 1ml thick Mud 50ml thick
1206	At 93 gal bailed. Turbidity is falling but still out of range
1212	Pulled final bailer @ 98 gal pumped Turbidity > 1000 still due to suspended fines
1225	Final Imhoff (98 gallons) Fine Sand: 1ml thick Mud: 15ml thick Turbidity > 1000
1230	Secured well vault, packing up
1245	off-site

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Earl Morse
Name

Earl Morse
Signature

EA Engineering, Science and Technology Inc., PBC

Reviewed by: _____

Initials: _____

Reviewed date: _____

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
Daily Quality Control Report - Non-Construction

ROLE: SSH
 @ 1000 WEATHER: overcast, 35°F, light snow, slight breeze

DATE: 3/14/19
 WELL ID: Zia Park Laydown

1. ONSITE PERSONNEL (including subcontractors and government employees)	
Name	Organization
	EA - Site Manager/Supervisor
<u>Lore Andress</u>	EA - Site Health and Safety Office
<u>Forrest Chattrin</u>	<u>Cascade - Lead Driller</u>
<u>Matt Sanchez</u>	<u>Cascade - Helper</u>
<u>Sibert Leslie</u>	<u>Cascade - Helper</u>

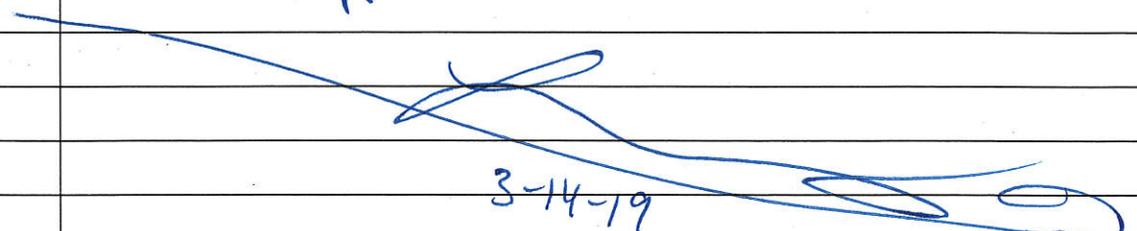
2. OPERATING EQUIPMENT
<u>Forklift, trucks, trailers, Bob cat</u>

3. DAILY SUMMARY (include QC samples collected, deviations from planning documents, conversations with the public and governmental employees, and problems encountered and remedies applied)
<u>Health & Safety Brief</u>
<u>- Cascade equipment (drill rod, drive casing, concrete blankets, wood for holding casing, etc...) removed</u>
<u>- Cascade's C&D roll off removed by waste management</u>
<u>- Steel Decan Pad removed</u>
<u>- All cascade equipment & supplies & trash have been removed from Zia Park Laydown Yard</u>

4. WORK PERFORMED (Indicate location, time, and description of work performed by prime and/or subcontractors)
<u>0950 Meet on site at Zia Park Laydown Yard</u>
<u>1000 Health & Safety Brief</u>
<u>1005 Sam Martinez on site from FLT transport to take decan pad out.</u>

Kirtland AFB Bulk Fuels Facility Vadose Zone Coring -- 62735DM02
 Daily Quality Control Report - Non-Construction

DATE: 3/14/19

4. WORK PERFORMED (Continued)	
	- Load air compressor on trailer & secure
	- Load drive casing on FLT flatbed
1101	- Load drill stem on FLT flatbed
1110	- Load tremie pipe on pipe truck // 1115 Load 5' lengths of drive casing on FLT flatbed // 1120 Load misc. equipment & supplies - put trash in cascades C&D dumpster on site
1205	Sam Matinez w/ FLT flatbed off site w/ drive casing etc.
1210	Cascade Breaks for Lunch - after lunch will pick up ^{the} loaded secured trucks/trailers & drive to their yard in Peralta NM.
1210	Lane breaks for Lunch & Cascades return for rest of stuff.
1523	Lane A back on site // 1528 FLT truck back on site
1530	Forrest back on site w/ Matt S // 1533 Sibert back on site w/ pipe truck & Waste management on site to pick up C&D roll off - pick up site of all trash & debris & place in roll off - Load steel decan pad onto FLT trailer
1604	FLT trailer & Sam M. off site w/ steel decan pad. - Load Remmy pallets & forklift onto trailer on pipe truck
1615	Sibert off site w/ pipe truck & trailer
1626	Forrest & Matt off site - Everything except Baker tank removed.
1630	Lane A off site -
	

5. CONTRACTOR'S VERIFICATION: I certify that to the best of my knowledge the above report is complete and correct. All equipment used, and work performed during this reporting period is in compliance with the contract plans and specifications noted above.

Lane Andress
 Name


 Signature

EA Engineering, Science and Technology Inc., PBC

DQCR Page 2 of 2

Reviewed by: _____

Initials: _____

Reviewed date: _____