



United States Department of Agriculture
Animal and Plant Health Inspection Service
4700 River Road
Riverdale, MD 20737

Permit to Receive Soil
Regulated by 7 CFR 330

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PERMITTEE NAME:	Patrick Garcia-Strickland	PERMIT NUMBER:	P330-10-00167
COMPANY:	Frontier GeoSciences, Inc.	APPLICATION NUMBER:	P525-091217-002
RECEIVING ADDRESS:	414 Pontius Ave N Seattle, WA 98109	DATE ISSUED:	05/18/2010
MAILING ADDRESS:	414 Pontius Ave N Seattle, WA 98109		
PHONE:	(206) 622-6960	EXPIRES:	05/18/2013
FAX:	(206) 622-6870		

PORTS OF ARRIVAL/PLANT INSPECTION STATIONS: Various Ports of Entry Staffed by CBP-Agriculture Inspection

HAND CARRY: No

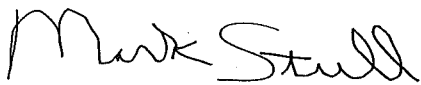
Under the conditions specified, this permit authorizes the following:

Quantity of Soil per Shipment and Treatment
Over 3 lbs

PERMIT CONDITIONS

1. This permit authorizes the importation of soil from Africa; Antarctica; Asia; Australia; Caribbean Islands (except Puerto Rico and US Virgin Islands); Europe; North America; South America sources only for chemical/ physical analysis in a controlled laboratory environment at the named facility on the permit. It is not authorized for use in field research or release into the environment.
2. This permit is issued only for the named permit holder at the address(s) identified on this permit. This permit cannot be transferred or assigned nor does it fulfill or modify the requirements of any other federal or state regulatory authority (such as the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the U.S. Food and Drug Administration, the Centers for Disease Control and Prevention, or the Animal Health Protection Act- 7U.S.C. 8301, or your State's Department of Agriculture).
3. The permit holder verifies United States residency by initialing and accepting these permit conditions. If you are not a United States resident, it is unlawful for you to initial or accept these permit conditions because a USDA 525 soil Permit can only be issued to United States residents.

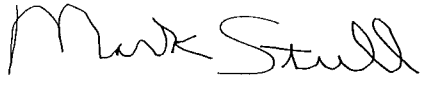
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<p>THIS PERMIT HAS BEEN APPROVED ELECTRONICALLY BY THE FOLLOWING PPQ HEADQUARTER OFFICIAL VIA EPERMITS.</p>  <p>Mark A. Stull</p>	<p>DATE</p> <p>05/18/2010</p>
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4. The permit holder is solely responsible for ensuring compliance with all statutory requirements and specifically listed permit conditions. Failure to comply with the terms and conditions of this permit is cause for the following: (a) cancellation of this permit, (b) cancellation of other permits issued to the permit holder, (c) seizure and/or destruction of regulated organisms, (d) denial of future permit applications by this permit holder, (e) liability for civil penalties, and (f) criminal prosecution under provisions in the Plant Protection Act.
5. Any alteration, forgery, unauthorized use of this permit and/or associated Federal Forms are subject to civil and criminal penalties including fines and imprisonment.
6. Importation, interstate movement, possession, and use of strains of genetically engineered regulated organisms (created by use of recombinant DNA technology) are not authorized under this permit.
7. This permit does not authorize movement or use of plant pathogens listed in the Public Health Security and Bioterrorism Preparedness and Response Act of 2002. If any organism listed as a Select Agent is identified from materials associated with this research, the permit holder is required to notify APHIS, Agricultural Select Agent Program (ASAP) within one business day by phone at 301-734-5960, and within seven (7) days submit APHIS/CDC Form 4 (Report of Identification of a Select Agent or Toxin in a Clinical or Diagnostic Laboratory) to APHIS, ASAP; 4700 River Rd, Unit 2, Riverdale, MD 20737 (see instructions at: http://www.aphis.usda.gov/programs/ag_selectagent/index.shtml). Failure to comply with this requirement is a violation of the Agricultural Bioterrorism Protection Act of 2002.
8. If a regulated organism is received in this shipment, the permit holder must take all prudent measures to contain the organism(s) and notify the permit unit within one business day by calling 866-524-5421 or by e-mail to pest.permits@aphis.usda.gov. The permit holder must immediately notify the permit unit of the destruction of regulated organisms received under this permit, as above. Similarly, the permit holder must immediately notify the permit unit if facilities are destroyed or decommissioned for any reason.
9. You as the permit holder are responsible for maintaining a valid permit for as long as the soil is in your possession. APHIS does not issue extensions or renewals of existing permits; the permit holder must submit a new permit application at least three months prior to the expiration of this permit, and obtain a new permit to continue uninterrupted authorization for the soil approved under this permit.
10. If an accidental release into the environment occurs, notification must be made within one business day to APHIS, PPQ, 4700 River Rd., unit 133; Riverdale, MD 20737; 301-734-6343. A written report of the incident must be submitted identifying: (a) the name of the permit holder (responsible person), (b) the permit number, (c) the country or State of origin of the soil, (d) the nature of the release, and (e) measures already taken to contain, reduce or limit the effects of the accidentally released soil. Any plans prepared to contain, reduce or limit the effects of the accidentally released soil may be submitted as developed.
11. Without prior notice and during reasonable hours, authorized PPQ and/or State regulatory officials shall be allowed to inspect the conditions associated with the regulated soil authorized under this permit.
12. The permit holder must maintain an official permanent work assignment at the address identified on this permit. If the permit holder ceases assignment/affiliation at the address identified on this permit, or personnel circumstances change in any way, then a compliance officer must be notified at the PPQ permit unit immediately (that is, within one business day) by either (a) email to pest.permits@aphis.usda.gov, (b) fax to 301-734-4300 or 8700, or (c) conventional mail to USDA PPQ Permit Unit, 4700 River Road, Riverdale, MD 20737. Should the permit holder depart from the organization/facility, the permit holder will either (a) request cancellation of this permit and comply with all permit-specific termination conditions, (b) apply for and receive a permit to move the soil to a new facility,

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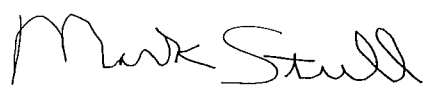
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or (c) relinquish control of the regulated soil to a qualified individual who obtained a permit for the continued use of this regulated soil prior to this permit holder's departure.

13. A copy of this permit must accompany all shipments authorized under this permit.
14. CBP-AI and PPQ have the authority to order and approve treatment, re-exportation or destruction of a shipment, a portion of a shipment or any other material associated with the shipment (i.e. pallets, packaging, and means of conveyance). If an official of CBP-AI or PPQ determines that the shipment requires treatment as a condition of entry, is contaminated with a quarantine plant pest or pests, is commingled with prohibited plant material or the required documentation is incomplete or missing, then that official may order and approve treatment, re-exportation or destruction of a shipment, a portion of a shipment or any other material associated with the shipment (i.e. pallets, packaging, means of conveyance).
15. All solid wood packing material (SWPM) accompanying the shipment must be in compliance with ISPM 15 treatment regulations and IPPC stamp requirements and enforcement. Noncompliant shipments will be treated, re-exported or destroyed at the consignee's expense.
16. All costs and arrangements for safeguarding and transportation of the cargo are the responsibility of the importer, broker or other parties associated with the shipment.
17. All operations must be consistent with information submitted in association with the above listed APHIS-PPQ inspected facility and subject to the conditions below.
18. Soil shall be shipped in a securely closed, watertight container (primary container, test tube, vial, etc.) which shall be enclosed in a second, durable watertight container (secondary container).
19. The shipment must be free from foreign matter or debris, plants and plant parts including noxious weeds and infestations by other macroorganisms such as insects, Cyst nematode nematodes, mollusks and acari. Authorized material found to be commingled with unauthorized material will be subject to the same action (i.e. re-export, destruction) as unauthorized material.
20. The imported article can be released without treatment at the port of entry to the permittee's address listed on the permit or label or to an authorized user only if the final destination is an approved facility listed at <https://web01.aphis.usda.gov/PPQ/AuthSoilLabs.nsf/web?openform>.
21. This permit does not authorize the use of soil for growing purposes, for isolation or culture of organisms, or for extracting and concentrating organisms from the soil.
22. Further distribution of soil is not allowed without prior approval from Federal officials [State Plant Health Director or designee] (or from Federal officials with State concurrence): Access the website at <http://www.aphis.usda.gov/ppq/sphd/> for a list of State Plant Health Offices. Access the website at <http://nationalplantboard.org/member/index.html> for a list of State Plant Regulatory Officials.
23. While in storage, all soil will be kept locked (e.g. in freezer, cabinet) in the approved lab with access limited to authorized personnel or they will be in a restricted access building that requires a key card entry and access is restricted to authorized personnel only; or it will be in locked room restricted to authorized personnel only.
24. The soil will be handled as quarantined material until sterilized. This will include keeping the soil enclosed in containers when not in use and labeling all containers and/or storage areas: "Quarantine Soil- Sterilize Before Disposal"

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- 25. All packing material, media, substrate, and shipping containers shall be sterilized or destroyed as approved and prescribed by the permit conditions after removing the soil.
- 26. All unconsumed soil, containers and effluent are to be autoclaved, incinerated or properly sterilized by the permittee at the conclusion of the project as approved and prescribed by the permit conditions.
- 27. Any water residues (effluent) from the processing of soil samples must be treated by an approved sterilization procedure such as hydroclave or autoclave.
- 28. All soil residues must be dry-heated, incinerated, hydroclaved or autoclaved.

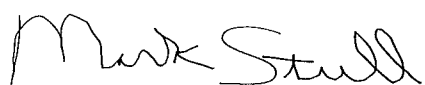
Dry Heat Treatment: use one of the following schedules:

- 110- 120.5 degrees C (230-249 F) for 16 hours
- 121-154 degrees C (250-309 F) for 2 hours
- 154.4 - 192.5 degrees C (310-379 F) for 30 minutes
- 193-220 degrees C (380-429 F) for 4 minutes
- 221-232 degrees C (430-450) for 2 minutes.

Time starts when the entire sample reaches the required temperature.

- 29. Autoclaving Soil and other material per the following conditions.
 - a. Soil must be autoclaved at 121 degrees Centigrade (250 degrees Fahrenheit) for a minimum of 30 minutes.
 - b. Autoclave tape or other indicators must be placed on each bag or sharps container prior to treatment. The autoclave tape or other indicator on each container must be checked to verify color change before disposal.
 - c. The autoclave log must be completed by each user for each autoclave cycle. All parameters must be noted as listed on the log for each autoclave load.
 - d. If the autoclave does not attain the minimum time and/or temperature or the autoclave tape does not change color, a notation must be made in the comment section of the autoclave log. The load must then be re-autoclaved after placing new tape on the material. If minimum time and temperature is not attained on the second cycle, users must contact the person responsible for maintaining the unit to initiate repairs. Waste should then be treated at an alternate autoclave facility that is approved by USDA.
 - e. Thermometers on the autoclave must be calibrated annually, and a written record must be maintained. This should be done by an authorized autoclave service company during routine servicing.
 - f. Every 6 months, you should use a commercially available test indicator kit that uses bacterial spores *Bacillus stearothermophilus* that are rendered unviable at 250 degrees F or 121 degrees C. For the test, ampoules of *B. stearothermophilus* are autoclaved along with a load of waste. Upon completion of the cycle, the ampoules are incubated for 48 hours and then observed for any sign of growth, which would indicate that the autoclave is not sterilizing properly. If any growth is observed, have autoclaved serviced and retest.

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30. Equipment and supplies used to conduct operations or that have contacted the soil must be decontaminated using one of the following methods:

- (a) Material can be soaked in a fresh bleach solution of 10 percent (1:10) for at least 30 minutes
- (b) Material can be soaked in 70 percent ethanol
- (c) Flamed with ethanol
- (d) Treated with quaternary ammonium compounds.

Note also that autoclaving, incineration, and dry heat sterilization are also acceptable sterilization/decontamination methods.

31. You must attach a PPQ Form 550 Black/White label to the exterior of each shipment being imported under this permit. We will send you the PPQ Form 550 Black/White labels upon issuance of this permit (i.e., a signed PPQ permit) by bonded courier. You may request additional labels by email at:

BlackWhiteGreenYellowlabelrequest@aphis.usda.gov. You must specify the type of label you are requesting, PPQ Form 550 Black/White labels, and the number of labels needed.

32. Underlying packaging/wrapping must carry the address, billing, and any other information required to direct the shipment to its final destination (i.e., the permit holder's address; Please note: USDA APHIS does not defray any additional shipping costs incurred for transiting the shipment through an inspection station as the initial US destination).

33. INSTRUCTIONS TO DHS CBP INSPECTORS FOR IMPORTED SOIL SHIPMENTS ROUTED DIRECTLY TO RECEIVING FACILITY:

1. Validate the permit in ePermits using the CBP search feature by logging on to:

<https://epermits.aphis.usda.gov/epermits>

2. Confirm that the shipment is being routed directly to a USDA APHIS PPQ Inspected Facility authorized to receive soil by logging on to: <https://web01.aphis.usda.gov/PPQ/AuthSoilLabs.nsf/web?openform>

3. Confirm that the imported shipment has a valid USDA PPQ Form 550 Black/White label.

4. Confirm that the carrier of the shipment imported under this USDA PPQ 526/525 permit is commercially bonded.

5. For questions or concerns, contact the USDA APHIS PPQ Permit Unit in Riverdale, MD, at 301 734-0841 and ask to speak with a compliance officer.

PPQ Inspectors:

1. This facility may be inspected with or without prior notice at any time during regular business hours and must be in compliance with all authorizations and conditions specified in this permit during such inspections. PPQ Permit unit in Riverdale, MD, may also contact you to schedule formal inspections of this facility as part of continuing permit compliance monitoring.


2. Prior to inspections, contact PPQ Permit unit in Riverdale, MD, at (866) 524-5421 for current information or documentation on the facility.

3. Any inspections or visits must be documented in the files located in the PPQ Permit unit in Riverdale, MD. You may fax reports to 301-734-5392 or email them to Pest.Permits@aphis.usda.gov.

4. Report all concerns about or violations of this permit to the PPQ permit unit in Riverdale, MD, at 301 734-6343/4404.

END OF PERMIT CONDITIONS

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