Poc = Rene Rodriguez - Director of EHS
Johann Linker = Director Landfill ops.
Jaime ~~Jaens~~ Jaén = UP ~~EC waste~~ Coqui Landfill

Arrive 9:30

**INSPECTION CHECKLIST: LANDFILL ASSESSMENT REPORT**

1. Name of the Person Completing the Form:
   Eduardo A. Torres / Person Interviewd Rene Rodriguez.
2. Date
   05/04/2018
3. Visiting Team:
   G. Rodriguez, C. Cajigas, V. Silva, E. Torres
4. Name of Landfill:
   Peñuelas Valley Landfill
5. Address:
   Road 385 Km 4.5 Bo. Tallaboa Peñuelas P.R
6. Name of Landfill Owner:
   Peñuelas Valley Landfill LLC
7. Name of Property Owner
   Environmental Conservation Associates. Longterm leas
8. Name of Landfill Operator & Telephone Number:
   Peñuelas Valley Landfill LLC / Rene Rodriguez - 787-447-2717
9. It's the administrative office at the facility? If not, what is the address?
   ✓ Yes ____ No
10. How many employees at the facility?
    (~~7~~) ~~em~~ employes SEVEN (7)
11. Do employees have training and knowledge of O&M? ✓ Yes ____ No
    *SWANA MOLO Certification: Ask them if there another certification that we should take in consideration.*
    Internal Training Program, operational, OSHA 30 Hrs

12. Does the landfill have security for the site? (entrance/active cells/ surroundings)

✓ Yes ____ No

24 hrs. security shared road with Ecosistema. but security is Peñuelas valley

13. Landfill area: (acres)

*Waste Area and Facility Area?*

168 acres 40 acres of the permited footprint.

14. Initial design capacity of landfill:

*When was the latest design capacity study done? Ask for the data?*

Do not Have

15. Date of Landfill Construction or Operating Permit Issued:

When was the current permit issued and status?

☑ Active Permit Since 1999 ☐ Under Review _____

☐ Submitted Permit _____

☐ No Permit _____

16. Date Landfill began Construction, Modification or Reconstruction:

Old cell _____ Other: _____

Current cell One cell different phases

Future cell _____

17. How many open/closed landfill cells?

2 open cell operating in phases

18. Have new cells planned? What it's the progress for those?

✓ Yes ____ No

Future Phase expantion

19. Have liners? ✓ Yes ____ No

all cell is lined

20. Landfill is Fully Operational? ✓ Yes ____ No

21. Any damage at present? (Before and after Hurricane María)

✓ ~~Yes~~ Yes ____No

*Your damage after Hurricane María was fix? Which one?*

Pump motor of leach ate ponds, power line. Storm water drainage outside the property damage, sprayer pumps.

22. Have any impact of the waste placement and rate? (After hurricane Maria)

____Yes ✓ No

23. Type of equipment used in the landfill: *List of heavy equipment.*

330 cat excavator, 290 excavator 835 articulated Truck, D6T, overtrowed Truck Trailer Tipper,

24. Type of waste (%)

| Type | Pre María (%) | Post María (%) |
|---|---|---|
| Municipal | | |
| Industrial | 100% | |
| Commercial | | |
| Yard (Vegetation) | | |

25. Sources and amount of waste receiving: *Daily tonnage*

| Pre María | Post María |
|---|---|
| Aprox 30,000 gallons | |
| | |

26. Is the incoming amount of waste seasonal or constant?

Constant, Industrial Waste

27. Waste quantification methods (Estimate yd³, Weight, Other)? *Do you have scale house or tower?*

Scale House

28. Have diesel or oil storage? Where? What amount? ✓ Yes ____ No

10,000 gallons diesel

29. Have ground water monitoring system? How many wells existing?

✓ Yes ____ No

3 groundwater monitoring wells.

30. Have a Storm Water Pollution Prevention Plan (SWPP)? ✓ Yes ____ No

31. Is the storm water system and drainage operating? ✓ Yes ____ No

a. What type of controls are in use? (*Should be observed, not ask direct*)

They used sprayers.

b. Have there been any slope damage/failure ____ Yes ✓ No

Do they know where the steepest slope is?

N/A.

32. What leachate collection system use?

a. Lined with / without leachate collection system working____

b. Liner collection or interceptions systems____

c. Slope French collection system____

d. Retaining ponds or Leaching Tanks____

e. How they do manage the leaching motor pump leachate system

f. Leaching Re- circulation? based on weather condition 30,000 gallons of recirculated leachate.

g. Other: They have a septic tank.

33. Is the landfill using daily cover? ✓ Yes_____ No

a. Extraction From landfill

b. Quarry_____

i. Is within or near an Historical archeological site? No

34. What kind and type of alternative daily cover are using/ or has been considered?

No

35. Is the Gas Collection and Control System (GCCS) working? ____Yes ✓ No

36. Use of Landfill Gas (Flare, Power, Fuel):

N/A

## Observations

37. Environmental impact (spills, etc.)

No

38. If any retention pond is in place, the same was designed for Storm water or leaching?

39. Implement the storm water pollution prevention plan? ✓ Yes ____No

40. Many Scavengers? ____Yes ✓ No

41. Are roadways maintain?

Paved Roads.

42. EHS Protocols

- ☐ PPE Level_____
- ☐ Communications_____
- ☐ Signage
- ☐ Emergency siren system
- ☐ Established escape route
- ☐ Heavy equipment back alarm
- ☐ Tires wash area
- ☐ Other_____
- ☐ First Aid Kit
- ☐ Defibrillator
- ☐ Infirmary
- ☐ Potable water Source
- ☐ Wash area
- ☐ Portable toilets (field)
- ☐ Dust control methods
- ☐ Other_____

43. Landfill fires? ____Yes ✓ No

a. When was your most recently fire? _____

44. Spill Prevention Control and Countermeasure (SPCC)? ✓ Yes ____No

45. Gas to Energy Infrastructure? ____Yes ____No ✓ Operation ____Under Construction

46. Additional Comments:

- Purpose of Peñuelas Valley ~~w~~ is industrial waste. Non Hazard (Rejects from Pharmasudical, Sluge, Process water, Non Hazard
- No methods to keep birds from the pond.
- The land fill have 3 water sources.
- Started using CCR's in 2006 - Fly Ash. Bed Ash.
- 6 or 7 million $yd^3$ designed.
- JCA permit, EQB permit, General operating permit from EQB Soil Extraction permit.
- Solified liquids on a pit. Depending on waste ~~na~~ liquid, 40:1 Ratio. if the used CCR's Ratio is 1:1
- The Lack of CCR's is a big concern for solidification.

C. Cajigas, V. Silva ; E. Torres

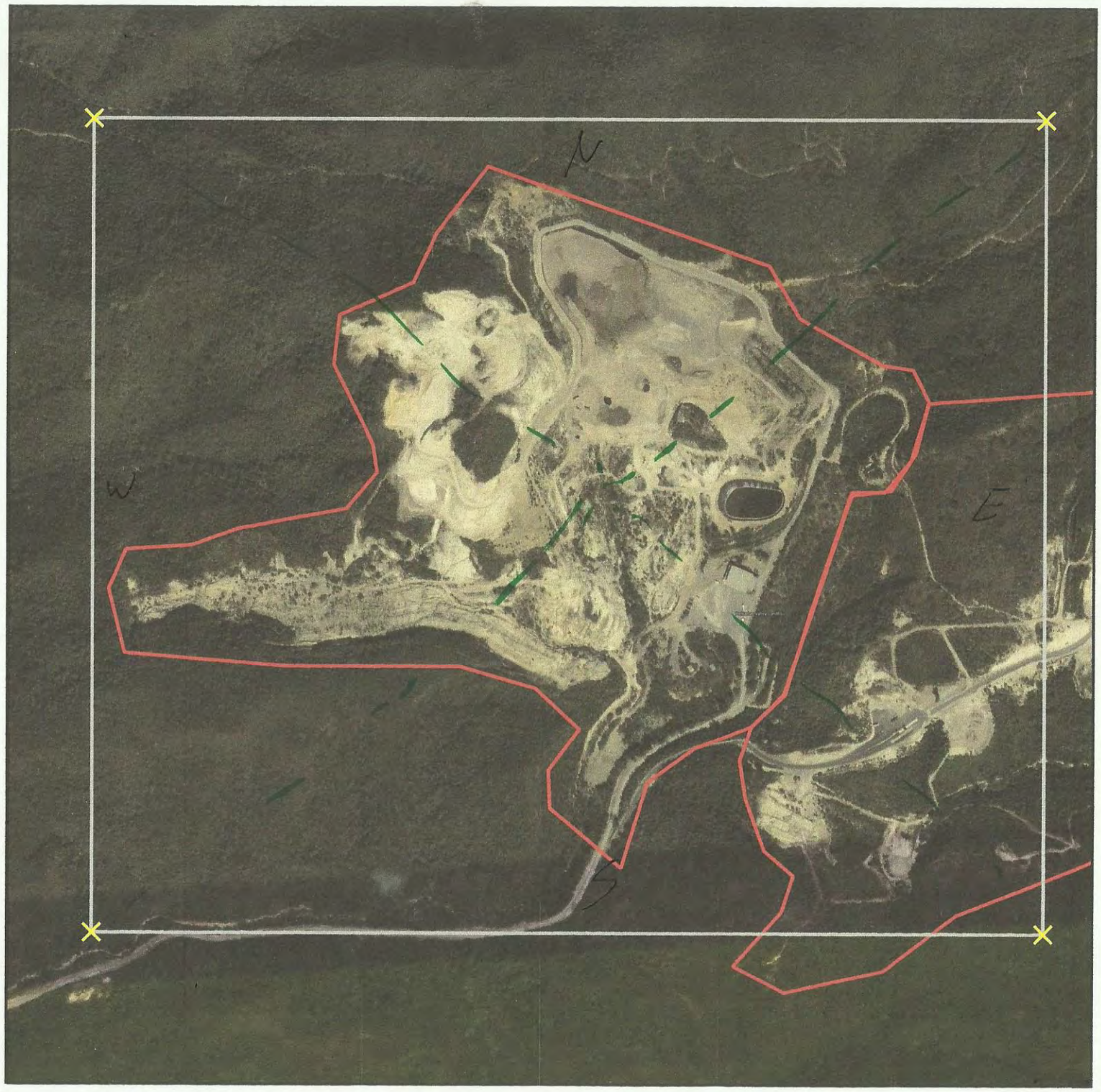
0 VOC ppm.

## Site Survey

Landfill : Peñuelas Valley

05/04/2018

| Points | Coordinates | | Elevation FT | | Slope |
|---|---|---|---|---|---|
| North | Up | Down | Up | Down | |
| ~~1~~ | ~~18.01810 -66.70279~~ | ~~18.01837~~ | ~~445~~ | | ~~420~~ |
| 2 | 18.01810 -66.70279 | 18.01866-66.70184 | 495 | 412 | 16° |
| 3 | 18.01822 -66.70255 | 18.01879 -66.70272 | 482 | 410 | 15° |
| 4 | 18.01840 -66.70284 | 18.01892 -66.70253 | 485 | 421 | 16° |
| 5 | 18.01851 -66.70316 | 18.01892 -66.70288 | 476 | 435 | 16° |
| 6 | | | | | |
| South | | | | | |
| 1 | 18.01654 -66.70425 | 18.01631 -66.70430 | 492 | 454 | 24° |
| 2 | 18.01651 -66.70402 | 18.01628 -66.70403 | 491 | 457 | 25° |
| 3 | 18.01645 -66.70366 | 18.01627 -66.70365 | 487 | 451 | 24° |
| 4 | 18.01645 -66.70318 | 18.01626 -66.70319 | 477 | 444 | 25° |
| 5 | ~~18.01657 -66.70293~~ | ~~18.01656 -66.70274~~ | ~~483~~ | ~~466~~ | ~~20°~~ 20° |
| 6 | | | | | |
| East | | | | | |
| 1 | 18.01657 -66.70293 | 18.01656 -66.70274 | 483 | 466 | 20° |
| 2 | 18.01675 -66.70246 | 18.01680 -66.70279 | 482 | 460 | 18° |
| 3 | 18.01704 -66.70205 | 18.01695 -66.70188 | 467 | 428 | 19° |
| 4 | 18.01734 -66.70184 | 18.01721 -66.70164 | 464 | 427 | 20° |
| 5 | | | | | |
| 6 | | | | | |
| West | | | | | |
| 1 | 18.01880 -66.70468 | 18.01876 -66.70486 | 454 | 437 | 18° |
| 2 | 18.01864 -66.70462 | 18.01858 -66.70476 | 488 | 437 | 20° |
| 3 | 18.01848 -66.70454 | 18.01842 -66.70467 | 462 | 441 | 19° |
| 4 | 18.01833 -66.70445 | 18.01825 -66.70454 | 456 | 455 | 18° |
| 5 | | | | | |
| 6 | | | | | |



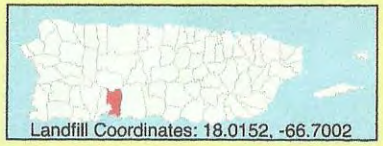

# Location Map
# Peñuelas Valley
# Hurricane María Response
# Landfill Assessment
# Peñuelas, Puerto Rico

Scale 1: 10000

0 250 m

**Legend**

Landfill Location



Landfill Coordinates: 18.0152, -66.7002

Sources:

1. Google, Imagery © 2018, Digital Globe. Imagery date: 2/21/17

Coordinates: State Plane, NAD 83, Puerto Rico & Virgin Island.