

July 11, 2016

Oil Conservation Division  
District 2 – Artesia  
811 S. First St.  
Artesia, NM 88210

**Re: Big Papi Federal Com #2**  
**30-015-37833**  
**Sec. 4, T26S-R29E**  
**Eddy County, NM**

Mr. Mike Bratcher,

COG Operating LLC would like to submit for your consideration the enclosed work plan for the above captioned well. This work plan is to satisfy the second half of the partial work plan approved on January 12, 2016. The purpose of this supplementary work plan is to address impact left in place during the time of deferment. The plan is in response to the C-141 Initial report dated August 7, 2015.

### **Background**

The release was due to a split in the poly line resulting in the release of 125 barrels of produced water of which 120 barrels were recovered. The release impacted the surrounding pasture, lease road, and crossed pipeline right of ways running parallel to the lease road. The release path ranged from approximately 30' in width at the initial point of release to 2' in width on the east side of the lease road and pipeline right of ways. The initial point of release occurred on a hillside causing the fluid to flow quickly in some areas while pooling in low lying areas. The attached Site Diagram depicts the approximate area impacted by the release along with the approximate sampling points.

On January 12, 2016 Lupe Carrasco submitted a proposed work plan to NMOCD District 2 and the Bureau of Land Management Carlsbad Field Office. The following plan included a scope of work based on delineation samples. Please see the attached diagram for reference.

- ***S1: Surface scrape of approximately 4 inches to remove any visible staining.***

*Sample results indicate high levels of chlorides at a depths past 2'. The scraped area will be capped with 2.5' of topsoil leaving the area at about 1' above the surrounding grade. Chlorides at this depth and at a site ranking of Zero poses no threat to ground water and chlorides are well below the root zone for future surface reclamation.*

- **S2:** Surface scrape of approximately 4 inches to remove any visible staining.

*Sample results indicate high levels of chlorides at a depths of 3' & 4'. With chlorides at this depth and a site ranking of Zero pose no threat to ground water and chlorides are well below the root zone for future surface reclamation.*

- **S3:** Excavate to a depth of 1.5' and backfill with topsoil. The chlorides left in place are slightly elevated at a depth of 3' & 4', but pose no threat to ground water and surface reclamation.
- **S4:** Surface scrape of approximately 4 inches to remove any visible staining. Sample results indicate high levels of chlorides at a depths of 4' plus. With chlorides at this depth and a site ranking of Zero poses no threat to ground water and chlorides are well below the root zone for future surface reclamation.
- **S5-S8:** Surface tillage with no excavation. This area is comprised of sandy topsoil with an underlying caliche base. S5 - S7 show elevated chlorides below 3' which at a site ranking of Zero poses no impact to ground water and chlorides are well below the root zone for future surface reclamation.

*Areas such as the lease road and the pipeline right of way will not be excavated or sampled due to safety concerns associated with work performed in these areas. The impacted area of the lease road will be bladed and caliche added to reduce the low lying areas in the road, thus immobilizing the chlorides from future leaching. The sampling performed up and down gradient of the pipeline right of ways should serve as representation of possible impact within these areas. The visible signs of fast moving fluid across these areas would lead one to suspect that impact is low in the areas associated with the pipelines and the sample results from S4 and S5 prove that any choride impact will probably be seen past the base of the pipeline. The excavated or disturbed areas will be reseeded with a BLM approved seed mixture in June 2016.*

*The proposed plan was approved by Mike Bratcher with NMOCD District 2 on January 12, 2016 with the following conditions: Your proposal for partial remediation of the above referenced site is approved, however, due to the elevated chloride levels proposed to be left in place, and, the site being situated in a major drainage feature that terminates in the Pecos River, the site will be deferred, and remain open in OCD database. Like approval from BLM is required. Shelly Tucker with the Bureau of Land*

Management Carlsbad Field Office concurred with NMOCD approval on February 3, 2016.

Dirt work for the approved remediation was completed on March 7, 2016. On March 21, 2016 Robert Grubbs, COG Senior Environmental Coordinator, requested closure of the RP #. Heather Patterson, NMOCD District 2, denied closure and requested the additional work plan to complete the remediation plan.

Through discussions with Heather Patterson, on May 18 and June 21, 2016 the following considerations points were identified:

- Deferment of remediation projects in pastures is difficult due to challenges with site security and no existing infrastructure that would warrant remediation for site closure in the future.
- Ensure remediation steps taken are protective of the environment.

The following work plan is based on the outlined objectives.

### **Groundwater**

Based on the Chevron Trend Maps, the release area would be classified at a site ranking of Zero due to the depth of groundwater at approximately 125'.

### **Work Plan**

COG proposes a long term monitoring plan to ensure the chlorides left in place are stabilized at their current depth. 4 sampling points were selected, one point in the flow path to measure leaching and three points to measure horizontal movement of chlorides. Please see attached sampling map.

Depth to groundwater in the area is at approximately 125', therefore the greater concern is not contamination of groundwater through leaching but rather horizontal movement of chlorides through the draw where is could potentially impact the Pecos River.

<b>Sampling Point Label</b>	<b>GPS Coordinates</b>	<b>Sampling Depth (TD)</b>
Sampling Point 7 (S7)	32.072767° -103.986052°	12'
Sampling Point 8 (S8)	32.072309° -103.986757°	4'
Monitoring Point 1 (MP1)	32.072603° -103.986506°	12'
Monitoring Point 2 (MP2)	32.070872° -103.988726°	12'

Samples will be taken in May of each year for the next 3 years, starting in 2017, and submitted to the NMOCD and BLM. Sampling will be conducted with a split spoon auger. A report will be submitted after 3 years of analysis have been conducted. If the

analysis shows no change, COG will request closure of 2RP-3228-o. Listed below is a sampling schedule.

Sampling Schedule

May 2017

May 2018

May 2019

If there are no objections or further stipulations, COG Operating LLC would like to begin the remediation process based on approval of this work plan. Please feel free to contact my with any questions or concerns at (505) 350-1336

Sincerely,



Amanda Trujillo Davis

Senior Environmental Coordinator

Enclosed

- (1) Site Diagram with Monitoring Points
- (2) Site Diagram and Summary Table
- (3) Area Map Overview



# Big Papi Federal Com #1

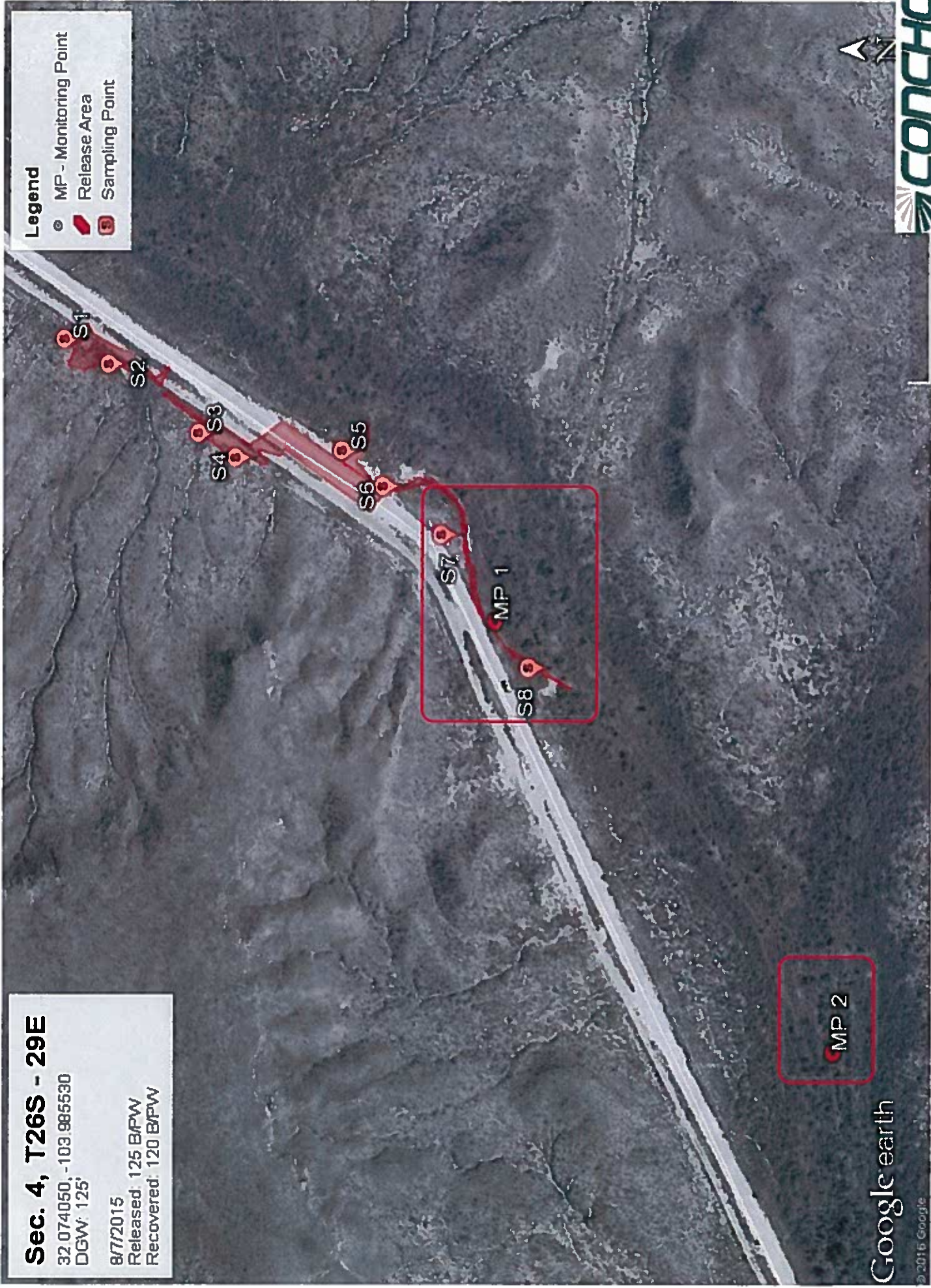
## Sec. 4, T26S - 29E

32 074050, -103.985530  
DGW: 125'

8/7/2015  
Released: 125 B/PW  
Recovered: 120 B/PW

### Legend

- MP - Monitoring Point
- Release Area
- Sampling Point





# Big Papi Federal Com #1

## Sec. 4, T26S-29E

32.074050, -103.985530

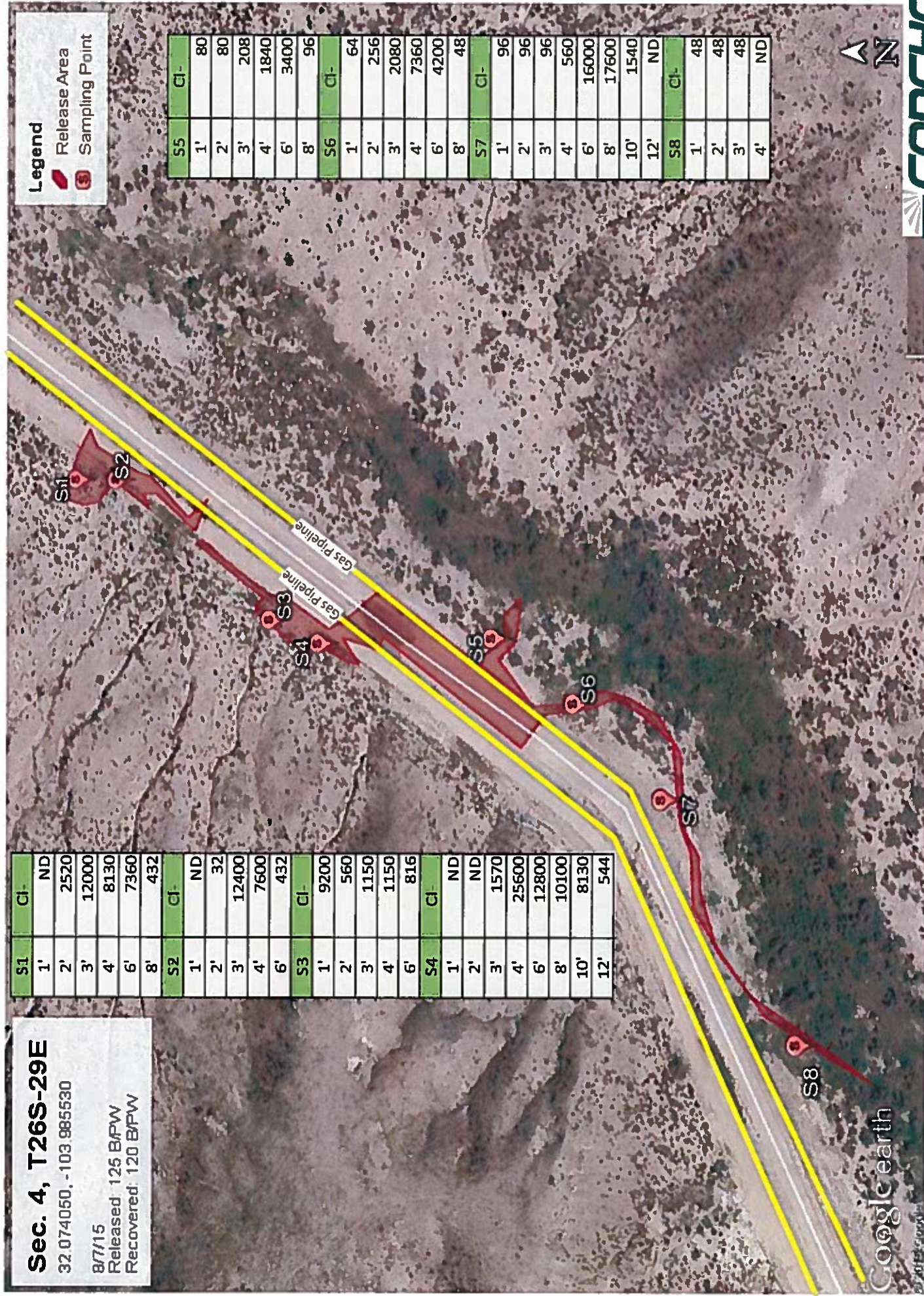
8/7/15

Released: 125 B/PW

Recovered: 120 B/PW

S1	Cl-
1'	ND
2'	2520
3'	12000
4'	8130
6'	7360
8'	432
S2	Cl-
1'	ND
2'	32
3'	12400
4'	7600
6'	432
S3	Cl-
1'	9200
2'	560
3'	1150
4'	1150
6'	816
S4	Cl-
1'	ND
2'	ND
3'	1570
4'	25600
6'	12800
8'	10100
10'	8130
12'	544

S5	Cl-
1'	80
2'	80
3'	208
4'	1840
6'	3400
8'	96
S6	Cl-
1'	64
2'	256
3'	2080
4'	7360
6'	4200
8'	48
S7	Cl-
1'	96
2'	96
3'	96
4'	560
6'	16000
8'	17600
10'	1540
12'	ND
S8	Cl-
1'	48
2'	48
3'	48
4'	ND



Google earth





# Big Papi Federal Com #1

Area Map Overview

