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**Subject:** Plains New McKee Jct. Sump Environmental Remediation Site -- Permission to Backfill to Facilitate DOT Pipeline Installation  
**Date:** Friday, October 16, 2015 12:26:08 PM  
**Attachments:** [New McKee Jct. Sump - Site and Sample Location Map.pdf](#)  
[New McKee Jct. Sump - Soil Chemistry Table.pdf](#)

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Please find attached a *Site and Sample Location Map* along with a *Soil Chemistry Table* that has been prepared for Plains's New McKee Jct. Sump environmental remediation site. The remediation site is located in Unit Letter "K", Sec. 29, Township 20 South, Range 38 East on land owned by the Bureau of Land Management. The GPS coordinates of the release site are N 32.54213°, W 103.17194°. The estimated depth to groundwater at the release site is approximately 60 feet bgs.

On September 2, 2015, environmental personnel began remediation activities at the release site. Active pipelines within the facility boundaries, along with the affected sump were exhumed using a hydroexcavator. In addition, one soil sample (RP @ 1') was collected from the release point and submitted to laboratory for analysis for chloride concentrations, which were determined to be 7.99 mg/kg. The affected area outside the facility in the western portion of the release site was excavated to approximately 6 to 7 feet bgs. Excavation sidewalls were advanced until field observations suggested hydrocarbon impacts had been mitigated.

On September 4, 2015, Terracon collected six confirmation soil samples (NE PA NSW, NE PA ESW, NE PA WSW, NW PA NSW, NW PA ESW and NW PA WSW) from the sidewalls of the excavated area in the western portion of the release site outside the facility boundaries. Collected soil samples were submitted to the laboratory for analysis of BTEX and TPH concentrations. Laboratory analytical results indicated BTEX and TPH concentrations were less than NMOCD Regulatory Standards in each of the submitted soil samples. Excavation activities continued toward the south.

On October 2, 2015, Terracon collected two confirmation soil samples (NE PA Floor @ 7' and NW PA Floor @ 6') from the floor of the excavated area in the western portion of the release site outside the facility boundaries. Collected soil samples were submitted to the laboratory for analysis of BTEX and TPH concentrations. Laboratory analytical results indicated BTEX and TPH concentrations were less than NMOCD Regulatory Standards in each of the submitted soil samples with the exception of soil sample NE PA Floor, which exhibited a TPH concentration of 303 mg/kg. The excavation was advanced in the area represented by soil sample NE PA Floor.

On October 12, 2015, Terracon collected seven confirmation soil samples (SSW #1, SSW #2, WSW #2, NSW #3, Center Floor @ 7', SE Floor @ 7' and NE PA Floor @ 8') from the excavated area in the western portion of the release site. Collected soil samples were submitted to the laboratory for analysis of BTEX and TPH concentrations. Laboratory analytical results indicated BTEX and TPH concentrations were less than NMOCD Regulatory Standards in each of the submitted soil samples with the exception of soil sample NE PA Floor @ 8', which exhibited a TPH concentration of 137 mg/kg.

Two additional soil samples (Telephone In-Situ and Cathodic In-Situ) were collected from affected

soil adjacent to an active cathodic protection system and telephone pole in the western portion of the release site outside the facility boundaries. Collected soil samples were submitted to the laboratory and are currently pending analysis of BTEX and TPH.

Upon advancing the floor of the excavation in the area represented by soil sample NE PA Floor @ 8' and receiving laboratory analytical results from the confirmation soil sample, Plains, requests NMOCD and BLM permission to backfill the excavated area outside the New McKee Facility with imported, non-impact material. In addition, soil represented by soil samples Telephone In-Situ and Cathodic In-Situ will be left in place until time of abandonment. Plains maintains excavating affected soil adjacent to the on-site telephone pole and cathodic protection system may compromise the integrity of facility and poses a safety risk. Upon backfilling the areas around the cathodic protection system and telephone pole with non-impacted soil, affected soil at the surface will be excavated by hand to the maximum extent practicable.

Upon receiving NMOCD and BLM approval, excavated areas within the facility boundaries will be temporarily backfilled with imported, non-impacted material and compacted to allow for the installation of a new DOT regulated pipeline being laid across the remediation site. Upon installing the new pipeline, Plains and Terracon will conduct delineations activities and prepare a *Work Plan* for the NMOCD and BLM designed to address historical soil impacts encountered in the eastern portion of the release site. If you have any questions or need any additional information, please feel free to contact Camille Bryant or myself by phone or email. Thanks.

Respectfully,

**Joel W. Lowry**  
**Project Geologist I | Environmental**

**Terracon**

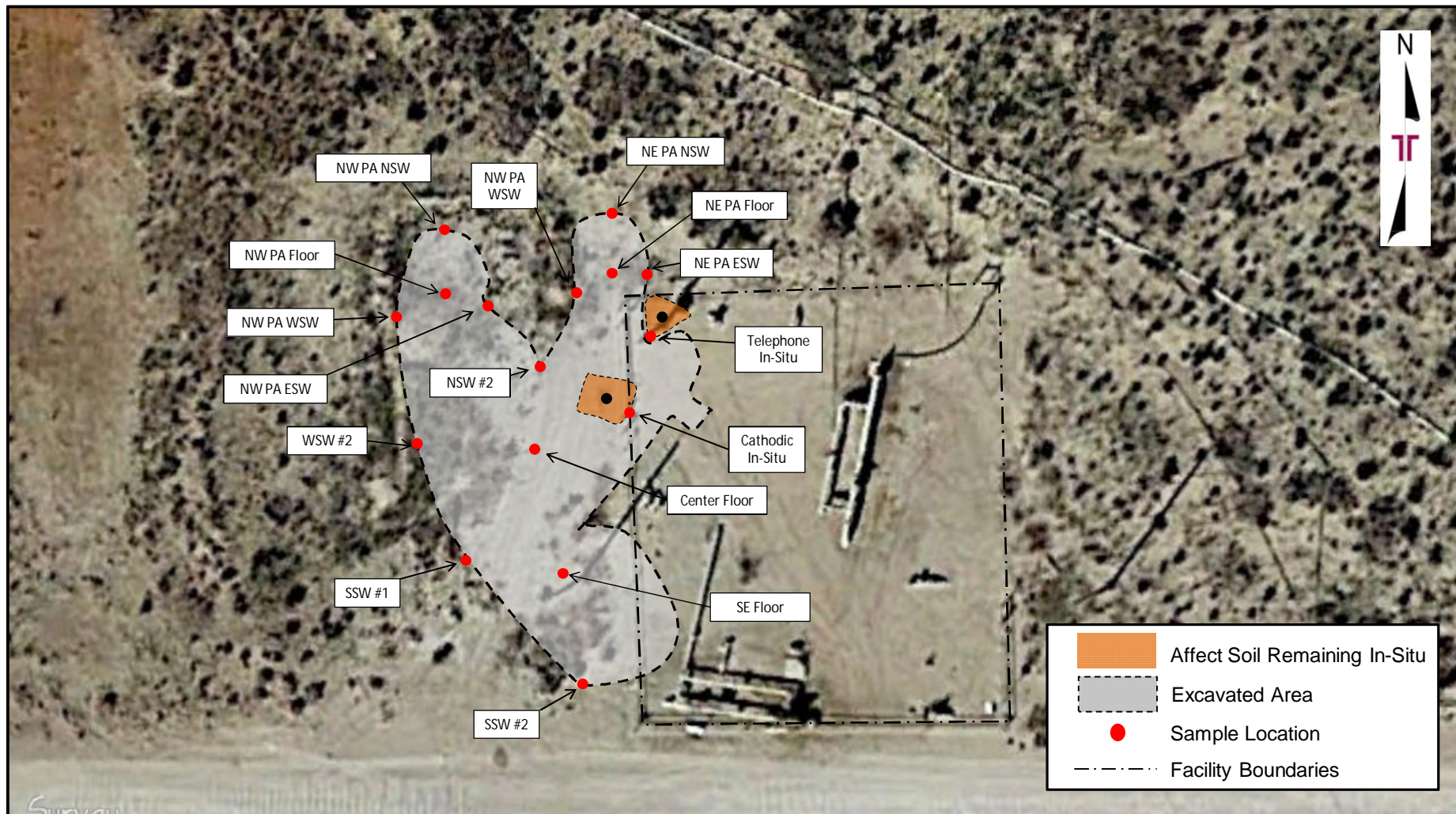
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Project No.	AR157452	<div> <div> <div>Terracon</div> <div>Consulting Engineers &amp; Scientists</div> <div> <div>5827 50<sup>th</sup> St. Suite 1</div> <div>Lubbock, Texas 79424</div> <div>PH: (806) 300-0104</div> <div>FAX: (806) 797 0947</div> </div> </div> </div>	Figure 2 – Site and Sample Location Map
Scale:	1" = ~50'		New McKee Jct. Sump
Source:	Google Earth		32.54213 ° N, -103.17194 ° W
Date:	2015		Lea County, New Mexico

**Table 1**  
**Confirmation Soil Sample Analytical Results**

Sample ID	Depth	Date	Sample Type	Soil Status	TPH				Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
					C <sub>6</sub> -C <sub>12</sub> (mg/kg)	C <sub>12</sub> -C <sub>28</sub> (mg/kg)	C <sub>28</sub> -C <sub>35</sub> (mg/kg)	C <sub>6</sub> -C <sub>35</sub> (mg/kg)						
RP	1'	9/2/15	Grab	In-Situ	-	-	-	-	-	-	-	-	-	7.99
NE PA NSW	6'	9/4/15	Grab	In-Situ	<15.0	58.5	<15.0	58.5	<0.00498	<0.00996	<0.00498	<0.00996	<0.00996	-
NE PA ESW	6'	9/4/15	Grab	In-Situ	<15.0	<15.0	<15.0	<15.0	<0.000998	<0.00200	<0.000998	<0.00200	<0.00200	-
NE PA WSW	6'	9/4/15	Grab	In-Situ	<15.0	<15.0	<15.0	<15.0	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200	-
NW PA NSW	5'	9/4/15	Grab	In-Situ	<15.0	<15.0	<15.0	<15.0	<0.000992	<0.00198	<0.000992	<0.00198	<0.00198	-
NW PA ESW	5'	9/4/15	Grab	In-Situ	<15.0	<15.0	<15.0	<15.0	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200	-
NW PA WSW	5'	9/4/15	Grab	In-Situ	<15.0	<15.0	<15.0	<15.0	<0.000996	<0.00199	<0.000996	<0.00199	<0.00199	-
NE PA Floor	7'	10/2/15	Grab	Excavated	<15.0	303	<15.0	<b>303</b>	<0.000994	<0.00199	<0.000994	<0.00199	<0.00199	-
NW PA Floor	6'	10/2/15	Grab	In-Situ	<14.9	<14.9	<14.9	<14.9	<0.000994	<0.00199	<0.000994	<0.00199	<0.00199	-
SSW #1	5'	10/12/15	Grab	In-Situ	<15.0	<15.0	<15.0	<15.0	<0.000994	<0.00199	<0.000994	<0.00199	<0.00199	-
SSW #2	5'	10/12/15	Grab	In-Situ	<15.0	<15.0	<15.0	<15.0	<0.00166	<0.00332	<0.00166	<0.00332	<0.00332	-
WSW #2	5'	10/12/15	Grab	In-Situ	<15.0	<15.0	<15.0	<15.0	<0.000998	<0.00200	<0.000998	<0.00200	<0.00200	-
NSW #3	5'	10/12/15	Grab	In-Situ	<15.0	<15.0	<15.0	<15.0	<0.000990	<0.00198	<0.000990	<0.00198	<0.00198	-
Center Floor	7'	10/12/15	Grab	In-Situ	<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00397	<0.00198	<0.00397	<0.00397	-
SE Floor	7'	10/12/15	Grab	In-Situ	<15.0	<15.0	<15.0	<15.0	<0.000992	<0.00198	<0.000992	<0.00198	<0.00198	-
NE PA Floor	8'	10/12/15	Grab	In-Situ	<15.0	137	<15.0	<b>137</b>	<0.00164	<0.00328	<0.00164	<0.00328	<0.00328	-
New Mexico Oil Conservation Division Regulatory Standard								<b>100</b>	<b>10</b>					<b>250*</b>

1. TPH = Total petroleum hydrocarbons analyzed by EPA Method SW-846 8015M.

2. BTEX = BTEX analyzed by EPA Method SW-846 8021b.

3. Chlorides = Chlorides analyzed by EPA Method E 300.

- = Soil sample not analyzed for that constituent.

< = Constituent not detected above the indicated laboratory reporting limit (RL).

\* = Remediation Action Levels for chloride are not currently specified in the New Mexico Administrative Code and are set by the NMOCD on a site-specific basis.

**Bold denotes concentrations that exceeds NMOCD Regulatory Standards**

Plain's All American Pipeline, L.P. ■ New McKee Jct. Sump  
October 16, 2015 ■ SRS No. *(pending)*

**Terracon**