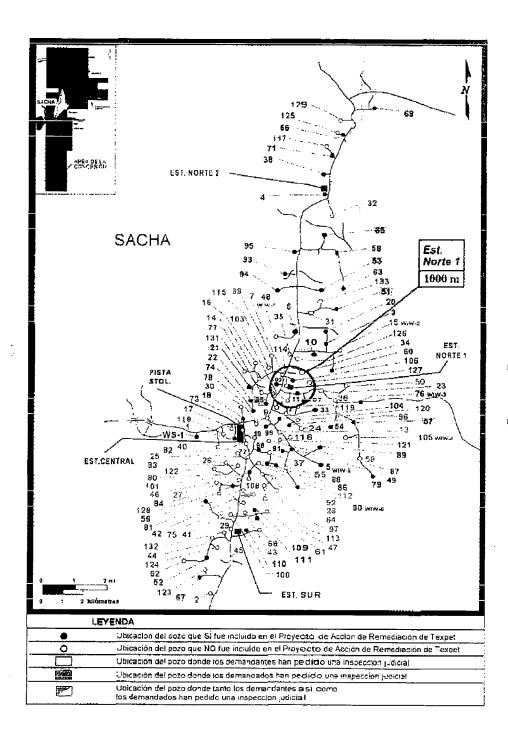
# EXHIBIT E



### **SACHA NORTE 1**

### RESUMEN DE LA ESTACIÓN

JUDICIAL INSPECTION PLAYBOOK

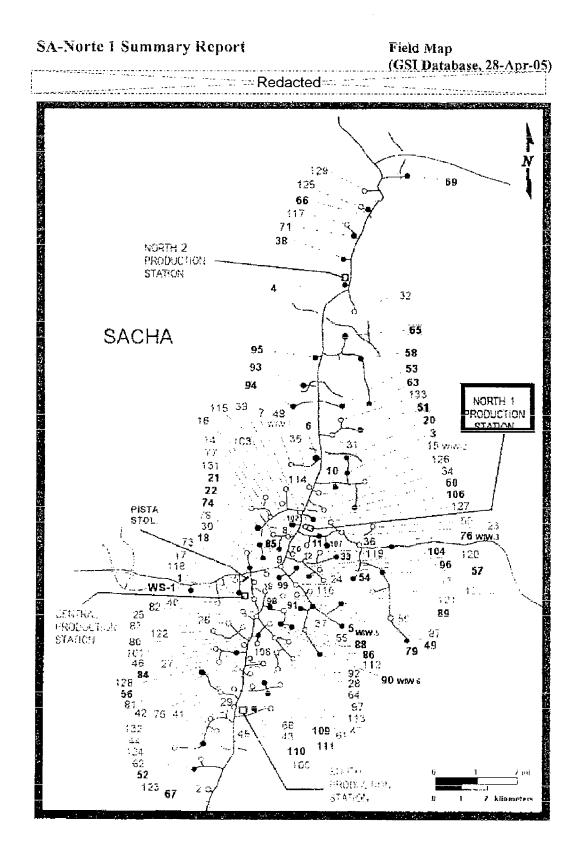
Redacted

Issued: April 2006

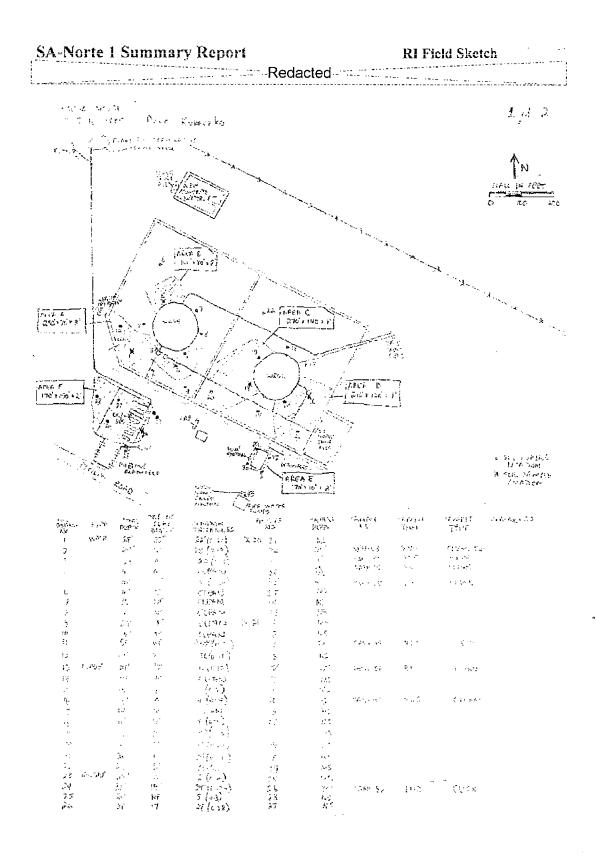
PLAYBOOK SECTION f
Judicial Inspection, Oriente Region, Ecuador



1.0 Executive Summary



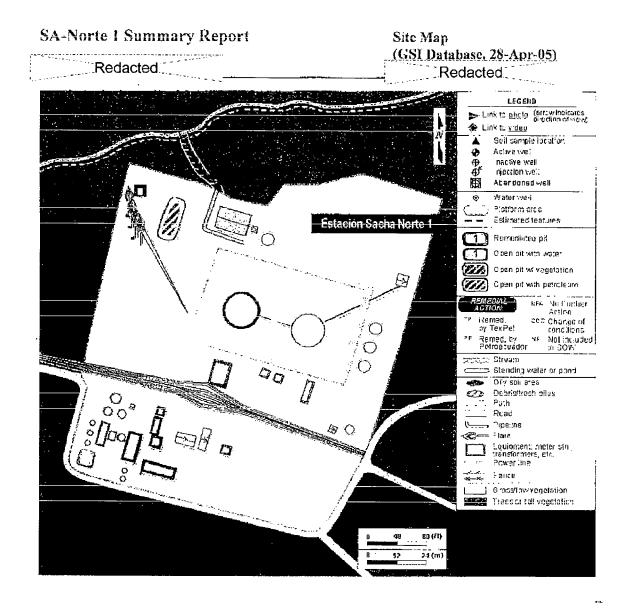
<sup>\*\*</sup> Projects Let 119 DOI: (1968/001) Summary Sub-Reporte Endralish-Name 18 No Name 1 Word Days SA Name 1 Facial May con-



TO SHOUGHT A DORLD TO A SUPPORT OF STREET SHOWS SHOW AS SHOUGH SEEDS A NEW OF STREET S

#### SA-Norte I Summary Report RI Field Sketch Redacted-58 F 34 8 18 17 2 4 2 11 Day 100 Dave Kiberska אם עד מרואל מרואל ARTAL AGIA ARKER DHICKNESS SAMPLE OLIVEN B SAMPLE 40, SAVI-59 Trapli Time 1130 DIVITY TALE SYMBOLE COMENTS 45"(2.48) 16.21 28 27 :/w .cp 5:" F9" SANI FIO 1172 CLENN SENE SIA CLEAN 1770 3<u>3</u> 75 ;9 FIFE ST 70 (0.36) 31 (6.71) 3601-513 : } 44 NS But were or ps' ij¢ 5 2 47, ji t Tal FIRE WITE CAS TOMP 15 (0 10) NS MS A.S 35 37 37 37 CHAN CleAd POTO ) ধা ঘূৰ্য Chra Centur suly THEFT MS ljiř ≱eř 155 155 · ; i (c : : ; Me Coude Contrary and 5 (c-15) SAMINES DIE THE FIRE FOR hi LE CLAN 4. $((\epsilon_{1}, \epsilon_{2}), \epsilon_{2}, \epsilon_{3})$ NS DECTY DIA CHEEL STARTE 44 $r_{\rm e}$ (5.1 $_{\rm h}$ ) φÞ 1.0 Wat 1945 चुंबर. 10 § (c · · ) 3 . . 5441-514 wir) ((154) 五(0:4) શ્-( 130 - 10 - 15 56' 110' 115 Sec 170 . 165° 1874. .... 3'(am) 11.5% 10 2013 ST 6 AND CO 1150 1000 0% 100 100 ie! 33.7 (166) toka je igila 5/-21-5/5 100

U "microskel), 4 (2011) TIGATION \$1,290RT: 9284596 Sammary Sin Remark String SA None (SA None ) Ward Daws Vol None 1 (O Held Sketchabe



Issued: April 2006
PLAYBOOK SECTION 1



Judicial ins	udicial Inspection, Oriente Region, Ecuador								
	VE SUMMARY:	Sacha Norte 1	Production Station	Page 1 of 4					
Site Selection	✓ Mou/sow		Plaintiffs Requested Inspection	Judicial Visit Order: 43					
Basis	√ Texpet RAP		Chevron Requested Inspection						
Ô		<u></u>	Judicial Inspection List						
Summary of Key Points	on the W and S sides of forms the northern border direction. To the SE and station. A fence borders S roadway that leads to to the E (to SA 011). O neighborhood and the S separation. Gas and protreatment occurs in the spass of this system results separation units are presidue E of the flares but a has been operable since Historical Produced V	the facility. The topograph of the station. This streat is, the land is used for fair the perimeter of the station, the city of Sacha (to the S) in the N side of the station A-106 well head. The stationed water separation is S portion of the station. This in periodic discharges the ent N of the wash tank. The preams recently dug with a 1990.  Vater Discharge: Produc	he center of the Sacha field and the surroundir hy of site is generally flat, with drainage to the imports with another larger stream at a location minimal and is sparsely populated. A powerling in, and access a through a gate on the W side. The entry road to the gate continues around in, a second roadway loads E from the main rotation is transversed by a pipeline that collects is carried out in the tanks and flares in the N signer majority of treated PW is used for an on-solo a drainage channel that leads N/NW to the in the flares are located on the NW corner of the sunknown uses. The well SA-114 is located in the nat SA-Norte 1 started prior to 1975. Curre	N provided by an E-flowing stream that in NE of the facility and continues in a SE right-of-way runs along the E-side of the The main road through the area is a N-the facility to the S-before turning again bad; it connects to a densely populated crude from over 30 Sacha well sites for de of this pipeline while produced water ite water flooding operation, though by-najor receiving stream. Abandoned API station. An additional small pit is located the W-central portion of the station and and handling of produced water involves.					
	separation according to a and sent to SA-Central cused to drive turbines, or a series of physical chetoatation, and filtration flooding re-injection for sAPI separation unit was system. It is unclear he discharged from the API of the API unit. The init construction of the API sefacility (based on the flowinfrastructure had been cin the 1990 photo. Both is served as discharge poin Two pits that were presents adjacent to a former flainfrequently or solely for (1993) is not identifiable to	source (high or low gas corprused for PowerOil system or used for PowerOil stream or treat econdary recovery. A porponstructed in 1996 and sow long the API was open or used to be provided for the produced water to diagram in the Fugro-Moonstructed by 1988, included these pits are currently of the provided for the pits and 1976 have the and contained crude. The water. Both of these pits or remote sensing imagery	ntent well) followed by transfer to the wash tank into at other wells, while the gas is sent to gas is, or is flared (NW of the wash tank). Produce the SW portion of the facility, including retent ted water to a holding tank, water is mixed with tion of the produced water goes from the was erved as the primary separation step prior to crable, but it is currently abandoned. Accordited on the N fenceline of the facility. This pipe short ravine that leads to the E-flowing stream was likely discharged to separation pits located colleland Audit Report (1992). Historical aerial ling a large pit adjacent to the flare. A second sclosed or re-vegetated. Two old pipes were enpit located NE of the surge tank has been presided to the flare was located approximatine second was located in the SE portion of the were closed by 1986. A small workover pit may, and it was reported as closed in 1992.	c. Crude is transferred to the surge tank abouts and gas scrubbers before being ad water is routed from the wash tank to ion, floculation, sedimentation with air th treshwater and user for reinjection. An completion of the water flood reinjection and to the station operators, water was is still present and is located < 50 m NE at on the N side of the tacility. Prior to near the flores in the NW portion of the photos indicate that most of the facility smaller pit (NW of the large pit) is visible countered N of the flores and may have ent since at least 1986 and is still open. Tely 80 m W of the current wash tank; it facility and appears to have been used entioned in the HRT-Agra Aud I Roport					
	further action is doe they have included in the Soc secondary recovery syste.  • Chevron Site Inspection  • Pits: Two pits has portion of the facility shall be portion of the facility shall be recountered were clean. The shall be recommended interval in NORTET-PI-SB42 point for this pit was of the sample reversional to the sample reversional shall be reversible to the sample reversional shall be reversible to the clean defineation for the clean defineation for the clean defineation be resulted by the results of the resulted flowing stream con NORTE-PI-SED21 hydrocarbons were the station, includice contained 760 mg/  • Drinking Water: Matthews of Samples (SA-NO) combination of GM	nad been impracted post-18 ppe of Work for producer with in exchange for work downs, 2004-2006 (conductor to 1986) it were closed prior to 1986 lity in a highly vegetated at clean soil (clay) to 3.0 m second closed pit was assing within the pit (SA-NOR that extended to at least 0) to the NW also encounters established with a third lealed TPH DBO of 20 mg/k etimeation bornings (SA-NO carbons detected. The pit bornings were collected N former pits and discharge woring. The second borning but analysis of a composide of the nearby SA-106 will describe the historic discrintained even higher level were generally lower in 18 detected in any of the sung the current freshwater/Fkg TPH DBO. Alany of the residents that aftion personnell). This was RTE2-PI-DW31/DW32) covinglish bottled weter, springlish wells, bottled weter, springlish wells, bottled weter, springlish wells, bottled weter, springlish wells, bottled weter, springlish was set to the second of the residents that	etion program (RAP, 1995) Identified 11 soil in 1990. The remaining 3 areas (1150 m²) were rered water modifications, which required purchashe at other sites.  If were investigated based on 1975/1975 agrial area. Two hand auger borings within the pit in, and two defineation borings (SA-NORTE1-Foctated with a former flare and was near the cottest with a former flare and was near the cottest with a former flare and was near the cottest with a former flare and was near the cottest with a former flare and was near the cottest with a former flare and was near the cottest with a former flare and was near the cottest with a former flare and was near the cottest with a former flare and was near the cottest with a former below 2.8 m (TPH DRO = 40 boring (SA-NORTE1-PI-SB43) located 100 m/s.  If an open vent pit located NE of the surge to boring (SA-NORTE1-PI-SB43) located 100 m/s.  If an open vent pit located NE of the surge to surrounding the current flares were not invest of the flare outside the fenceline, and one (SA-Serrounding the current flares were not invest of the flare outside the fenceline. And one (SA-Serrounding the current flares were not invest of the flare outside the fenceline. And one (SA-NORTE1-PI-SB44) was drilled to 0.5 m in pacts (SA-NORTE1-PI-SB44). Upstream in pacts of TPH DRO (1100 mg/kg). Upstream is TPH DRO (24-100 mg/kg) with detentable lever flace water samples collected from these locat PW discharge stream on the W side of the faction of the fact	mediated by encapsulation. The station is and transfer of equipment for the search transfer of equipment for the photos. The first was located in the SE (SA-NORTE1-PI-SB3, SA-NORTE1-PI-SB1, SA-NORTE1-PI-SB1, SA-NORTE1-PI-SB2) to 3.6 m urrent location of the SA-114 wellhead, in below 0.9 m of clean cover, and an 49 mg/kg). A visually clean de ineation NW of the first poring, although analysis and contained water with conductivity of folior to 3.0 m and encountered sandy tigated for safety reasons but appeared NORTE1-PI-SB45) established a clean were noted to a depth of 3.2 m in this a historical crainage citch and was not PDRO was present. A large pit was sed but is under the house of N. Ramos, the sediments (SA-NORTE1-PI-SED2) in collected at the continence with the E-diments (SA-NORTE1-PI-SED5, SA-Is of TPH GRO and some toluene. No ions or any other locations surrounding lifty. Sediments in this drainage stream by the station, but most do not crink it times, and the source is the Ric Parker. Of the 26 residents interviewed, a highlight of the station, water sources. No					

### **PLAYBOOK SECTION 1**

Judicial Inspection, Oriente Region, Ecuador



### **EXECUTIVE SUMMARY: Sacha Norte 1 Production Station**

Page 2 of

### Summary of Key Points (continued)

- Flare: Four flare stacks are present in the NW portion of the station; 2 or 3 were observed operating during various site visits.
   Surface impacts were noted in the area surrounding the flares, but no evidence of the former flare pit exists and the area is vegetated. Prior to 1986, the flares were located approximately 180 m S of the current location.
- Vegetation: Vegetative stress was noted in the areas upstream of the station surrounding the August 2005 pipeline broak.
- Impacts by Petroecuador and Others: There were 12 spills listed in the database since 1973. Other major spills that were widely reported include a 5000 bbl release in 1992 (due to negligence) and another large pipeline break near the gas station NW of the facility in August 2005 (caused by earth-moving equipment). Both impacted the stream N of the station, and the impacts of the latter are still visible on surrounding buildings and vegetation. Numerous other spills were recalled by local residents.
- Site-Specific Claims (see Figure 2.1C for residence locations): Residents complain of the recent spill that occurred in 2005. They say that they have been told not to drink the water supplied by the station. Many have obtained results from water quality sampling of their drinking sources. Most complaints are related to station activities, particularly the flares and frequent spills. Several note that water has been discharged into the stream N of the station, and at least one stated that it occurs daily.

### Texpet Remedy

(See Playbook Section 5.2)

	oints re: Texpet Remedy at this Si	le .	See Playbook Tab:		
1 - 7 - 2 - 2	Remediation Task	Date Completed	Notes		
<b>S</b>	Produced Water Reinjection System		Received process equipment to be installed by Petroecuador in exchange for Petroecuador performing the Palo Rojo-01 well plugging and abandonment and the Culebra and Sacha Norte 1 (well SA 036) dike construction.		
· S	Soil Remediation	8/13/1996	11 areas, 8 after 1990		
V	Secondary Containment Dikes	1	Petroproduccion began to construct dike at Sacha Norle 1 at a later date using the design criteria developed and, in exchange, Texpet provided equipment to Petroecuador which Petroecuador would use to optimize their secondary recovery plant at the Sacha Norte 1 production station. This agreement was approved by GOE in September, 1996.		

Remediation/Closure Criteria for this Site: TPH TCLP < 1000 mg/L (Soil only)

### Summary Discussion re: Texpet Remedy at this Site:

- Soil areas remediated during Texpet were not viewed during Chevron inspections. Three areas (Area B, located NW of the wash tank; Area D, located SE of the surge tank; Area E, located near pump station) impacted before 1990 are identified on the site sketch from the remedial investigation and areas were remediated via encapsulation. A volume of 378 m³ was remediated for Area B, 680 m³ for Area D, and 92 m³ for Area E. Post-remediation samples were taken of the treated stockpiled soil prior to backfilling, and samples from all areas had TCLP concentrations <5 mg/L.
- · Soil remediation at the facility was approved in a government ACTA on March 20, 1997.
- Produced water re-injection was part of the RAP, but only as an equipment purchase and transfer (in exchange for work done at other sites noted above). All equipment was ordered by December 1998, though there is no indication of the date of final transfer. Approval was granted in March 1998. Installation was the responsibility of PE.

### Water Resources

(see Figures 2.1A and 2.1B for sample locations and 2.1C for locations of residents)

### Key Issues for Ground Water, Drinking Water and Other Water Supplies:

There is one major stream system that forms the N boundary of the station. All historic discharges (as well as uncontrolled or inadvertent current discharges) are likely to this stream. It flows from W to E and is located 20 to 40 m N of the station fence line. The stream is approximately 0.5 m wide with high grasses but few large treas on its banks. Upstream of the station, there is a small spring-fed tributary that also flows E and joins the other stream at a point 100 m W of the flares. Another small stream flows N/NW from the W side of the station and eventually combines with the E-flowing stream. A contion of the flow in this small stream appears to be comorised of a mixture of partially treated produced water and freshwater from the main stream. This mixture is discharged into a drainage channel that flows N from the saltwater treatment facility before becoming a more natural stream that continues off site. At times, it may also receive flow from the drainage channel that leads W from the wash tank. A surface water sample (SA-NORTE1-PI-SW43) of the small stream was collected at the location where it exits the facility (passing under the station fenceline) and no petroleum impacts were detected. The conductivity of this sample was 0.183 mS, which was similar to the value determined several weeks earlier (0.193 mS from SA-NORTE1-ECO SAMPLE-08). The sediment sample (SA-NORTE1-PI-SE043) collected at this same location contained 760 mg/kg TPH DRO and a J flag detection of TPH GRO (0.46 mg/kg) t a point NE of the station, the receiving stream joins with another stream that flows primarily in a SE direction. The combined streamflow continues SE through a spring sample and sediment sample (SA-NORTE1-PI-SW41/SED41) collected near the exit point were free of petroleum impacts.

### PLAYBOOK SECTION 1 Judicial Inspection, Oriente Region, Ecuador



### ECUTIVE SUMMARY: Sacha Norte 1 Production Station

Page 3 of 4

### Water Resources (continued)

(see Figures 2.1A and 2.1B for sample locations and 2.1C for locations of residents) Visual impacts of the E-flowing stream were noted in the ravine that is directly below the historic discharge point. Samples were collected at various locations to assess impacts, including a series of conductivity readings that were performed as part of the ecological survey. Petroleum impacts were confirmed in the sediment samples taken in the ravine near primary discharge pipe (SA-NORTE1-PI-SED2) as well as several other upstream and downstream points. Analysis of SA-NORTE1-PI-SED2, SA-NORTE1-PI-SED3, SA-NORTE1-PI-SED3, SA-NORTE1-PI-SED3, SA-NORTE1-PI-SED3 resulted in detectable levels of TPH DRO in stream and wetland sediments. In general, these TPH DRO values were < 1000 mg/kg, with the exception of a detection of 1100 mg/kg in SA-NORTE1-PI-SED3 located at the confluence of the drainage ravine with the main stream. There were few detections of BTEX above J flag levels, with the exception of 1.1 mg/kg toluene in SA-NORTE-PI-SED5. However, none of the 11 SW samples analyzed were contaminated with petroleum. The highest conductivity reading was 0.44 mS in an area upstream of the produced water discharge (SA-NORTE-PI-ECQ SAMPLE-06). SA-NORTE-PI-SW2 and SA-NORTE1-PI-SW3 (collected in the ravine near the discharge point N of the station and downstream at the confluence) had conductivity readings > 0.2 mS, which is above background in other areas of Sacha field. However, these values appear to be consistent with other water samples within 500 m of the station. The only water samples—including GW—that were < 0.1 mS were SA-NORTE1-PI-GW32 and SA-NORTE1-PI-GW33 from wells on the SW corner of the area, and SA-NORTE1-PI-SW52, which is 100 m E/NE of the station.

The majority of residents have access to water that is supplied from the station (for as long as 10 years), but only a few use this as a primary source of drinking water. Most use a combination of groundwater or spring water, with several relying on bottled water or water that is trucked n. No petroleum impacts were detected in any drinking water source, with the exception of 0.01° mg/l. of TPH GRO (J flag) in SA-NORTE1-Pt-GW51.

Major releases of petroleum into this primary receiving stream occurred during an August 2005 pipeline break (see below), and that the assessment of downstream impacts related to historic or current station activities is likely to be difficult due to this recent event.

### Site-Specific Claims

e Playbook tions 2.4 and 4.0)

### Summary Discussion re: Plaintiffs' Site-Specific Claims and Examination of Witnesses:

- FDA Plaintiffs' Database (1999 2000) claims that salty water had been discharged from the station (through an ote pipe that is still present) and has impacted the receiving stream.
- There was no information in the Bejaranos update (2000-2003) for this station.
- n Chevron interviews (2004-2006) (not official claims—see Figure 2.1C for resident locations); Drinking Water: No major complaints were made about groundwater wells, though several stated that the water occasionally tasted acidic or oxidized, and one said diesel residues have been found ( Redacted thinks her well might be contaminated because it is close to the stream. Several residents ( Redacted Redacted have had their drinking sources tested (by unknown parties) with mixed results, though it is unclear if claims about quality were related to betroleum or bacterial contamination. Hesidents have been advised not to drink the station-supplied water; several note that it often appears unpleasant and must be boiled before drinking (M. Redacted has heard that a portion of the supply is comprised of produced water. Surface Water: Many residents claimed that the E-flowing stream that is N of the station is contaminated by station activities and frequent spills. Ledactac says that impacts of discharged PW and petroleum have impacted the Bio Parker and Bio Sacha (downstream). M. Vasquez says that discharges still occur from the station, and aclactic stated that they occur 3 times a day. edactementioned that a spring near his house has been impacted by spills. Flares: The flares are very noisy (especially at dawn and at night) and there are many complaints of gaseous odors. Spills: A large spill occurred in August 2005 immediately N of the station and was mentioned by most residents who were interviewed after this event. Redacte(mentioned 2 spills that occurred in 2004 or early 2005 that impacted the stream S of his house (N of the station), and others also remembered at least one in that period KARACIAS and that recent overflows from a pit within the station have impacted the stream. Redactecmentioned that PE has provided compensation (including the water lines to their houses) for recent spills from the station. Several residents (e.g. F. EQACT) expressed frustration that nobody is taking responsibility for impacts caused by station activities and soilis. Some said that the general situation was better than when Texano was operating (edacte, while others said it is better now with Petroecuador in control (edacte-Health Complaints: General health complaints (such as flu, achos, fevers, neart problems) were made by the residents, but with few exceptions Redacted the latest they were not attributed to petroleum or station activities. Some stated that their frequent skin problems and intestinal infections were the result of exposure to contamination ledacteor pad drinking water Redacted. Many complain about the flares and frequent odors of

gas [\_\_\_\_Redacted\_\_\_\_], which contribute to headaches and have impacted fish ponds Redacteo.

### PLAYBOOK SECTION 1 Judicial Inspection, Oriente Region, Ecuador



### **EXECUTIVE SUMMARY: Sacha Norte 1 Production Station**

Page 4 of

Petroecuador	Petroecuador Actions (1990 – Present) (checked if applicable) See Playbook Tab:									
Actions (1990-Present)	□ Workovers:									
	Spill Reports: 3.0									
	Problem Areas Identified by Chevron: 2.0									
	✓       Problem Areas Identified by Chevron:       2.0         Summary Discussion re: Impacts by Petroecuador and Others									
	No workovers are listed in the recent database for this site (including SA-114).									
	<ul> <li>A total of 12 spills were recorded from 1973 to 2004, including 1 spill in March 1999 that impacted 10,000 m². Major known spills that are not in the catabase include: i) 1992 spill that released 5000 bbl to the stream and impacted areas far downstream, and ii) August 2005 spill that occurred following pipeline break near gas station N of station. Both spills were widely reported in newspapers, and the impacts of the latter (stained building walls, oiled vegetation and dobris, and stained stream banks) were still visible in January 2006.</li> <li>The Fugro-McCletland Field Audit (1992) lists that PW was sent to Pit 1 (150 x 150'), Pit 2 (25 x 25'), and then discharged to the environment (Note: these dimensions correspond to the 2 pits visible near the flares in the 1990 aerial photo). An unused vent pit, Pit 3, and a small oil pit, Pit 4 (20 x 15'), were also listed. Petroleum releases into a receiving stream were noted, with the major receiving stream noted as the Rio Plandayuca. A chloride concentration of 1.7 ppm was reported upstream, 2,520 ppm at the produced water outfail, 65 ppm within the mixing zone of the culfall, and 1275 ppm at a location 100 m downstream of the discharge.</li> <li>The HBT-Agra Field Audit (1993) documents that there were 3 open pits (including the vent pit), as well as a workover pit that was covered in 1992, it reports that the receiving stream below the pit discharge area contained extensive contamination but no current discharge. It specifically states that no impacts on crinking water quality were observed. Water quality data for the discharge and receiving stream are presented, along with data for a nearby GW well and soils in an on-site PW pit.</li> </ul>									
Judiciai	Sampling Objectives for Judicial Inspection:									
inspection Sampling: Key issues	Goals of judicial inspection include:  i) Show clean GW wells and drinking water supplies.  ii) Produced Water: Conduct tour to verify that produced water is treated and used for water flood. Confirm that system is periodically by-passed.  iii) Demonstrate clean soil boundaries surrounding on-site pits and station boundaries.  iv) Co-sampling of all plaintiff's locations.									
	Potential problems include:									
	<ul> <li>i) Recent pipeline break and spill near the gas station N of the station is upstream of the station, complicating the assessment of historic or on-going station actitivies.</li> <li>ii) On-going discharges of produced water occur as part of a by-pass of the water flood.</li> <li>iii) Size of station and dense copulation on its perimeter.</li> </ul>									

PLAYBOOK SECTION 2
Judicial Inspection, Oriente Region, Ecuador



2.0 Chevron Pre-Inspection Activities 2003 - Present

### **PLAYBOOK SECTION 2** Judicial Inspection, Oriente Region, Ecuador



Page 1 of 2

Overview	Inspection Activities 2003 — Present: SA-Norte 1 Production Station  This section reviews and expands on the Chevron Pre-Inspection Activities from 2003 — Present.									
	Date (s) of Christie Spill Christie Spill Christie Spill Christie Spill Christing Pit with Christian Christia									
Current Environmental Site Conditions	Historic PW discharge N of slation into E flowing stream, with impacts noted in sediments below discharge point.  Current PW and water flood reinjection confirmed but periodic discharge of excess (or by pass of existing water treatment) occurs and exits W in stream. Two closed pits, 1 overgrown flare pit, 1 open vent pit, and 1 new water pit. 1 open vent pit, and 1 new water pit confirmed. Groundwater is the primary resource for most residents but there is access to station-supplied water for some residents. Operating flares in NW corner of facility. Extensive PW treatment facility for transfer to water flood for secondary recovery. In the process of installing new pumps. SA-114 is located within station boundaries.									
Recent Analytical Results (See Tab 2.1)	Attached Data Tables from Recent Sampling and Analysis Events									
:	March 2005 Table No. Description 1 Sampling Locations for March 2005 Sampling and Analyses 4 A Results of Groundwater and Drinking Water Sampling: TPH, BTEX, Metals, and General Water Quality Parameters 4 B Results of Groundwater and Drinking Water Sampling: PAHs 5 A Results of Surface Water Sampling: TPH, BTEX, Metals, and General Water Quality Parameters 5 B Results of Surface Water Sampling: PAHs 6 A Results of Sediment Sampling: TPH, TOC, Metals, and BTEX 6 B Results of Sediment Sampling: PAHs									

### PLAYBOOK SECTION 2 Judicial Inspection, Oriente Region, Ecuador

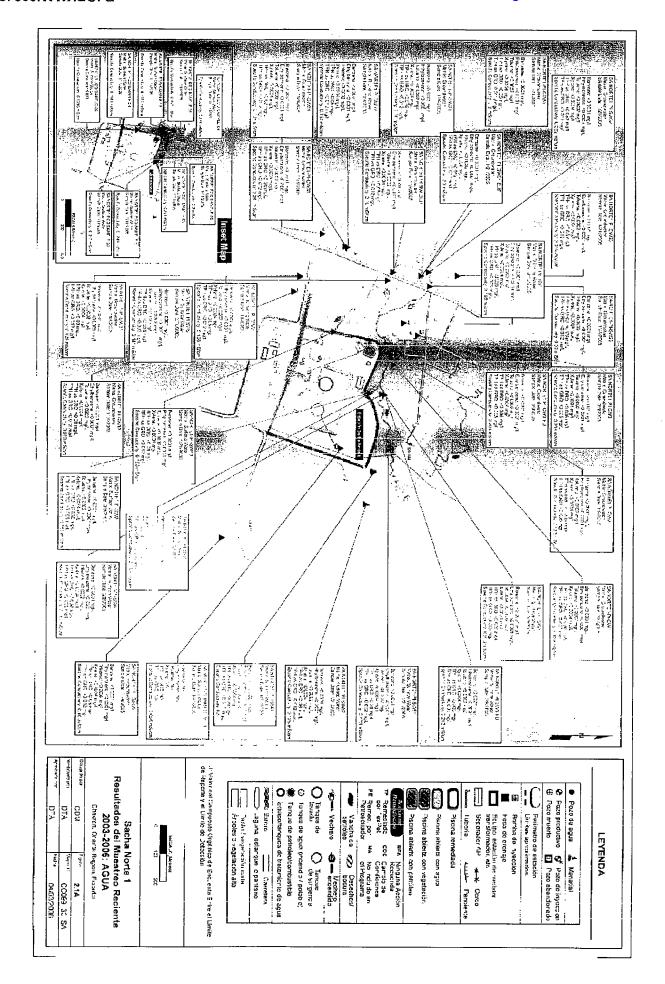


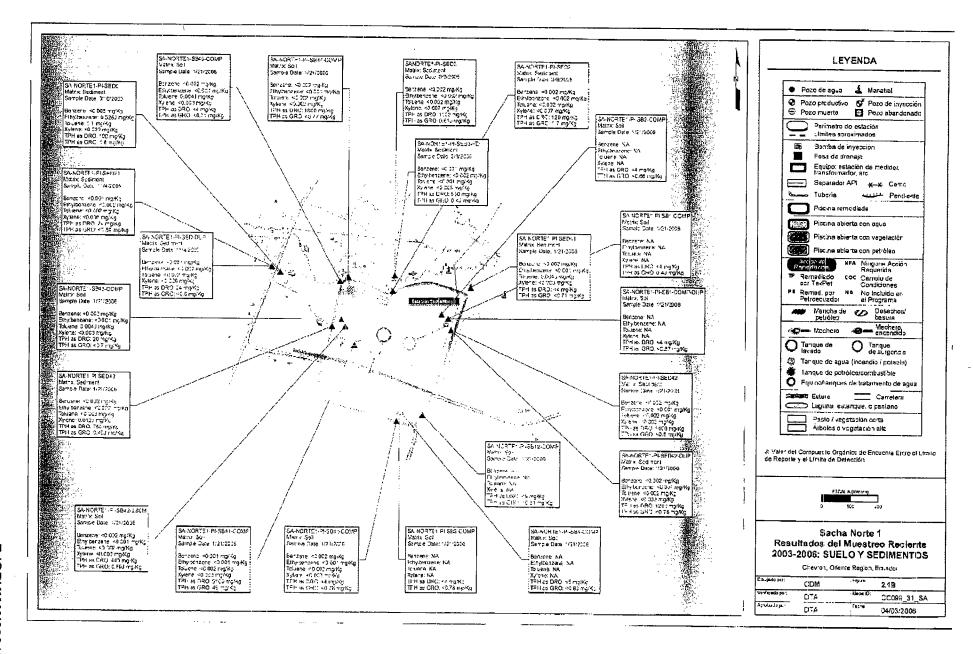
Page 2 of 2

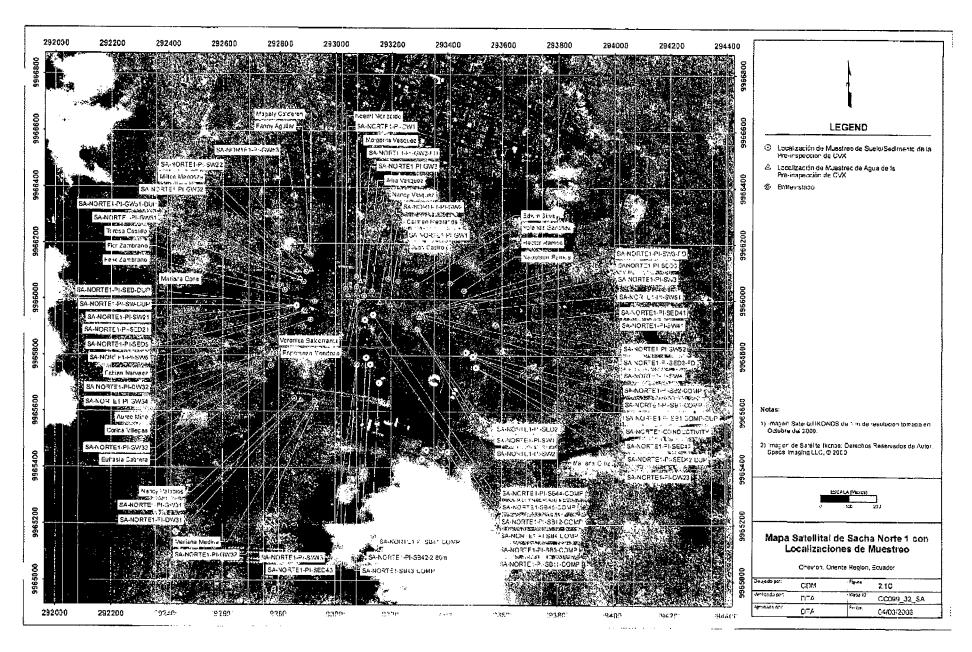
### PLAYBOOK SECTION 2 Judicial Inspection, Oriente Region, Ecuador

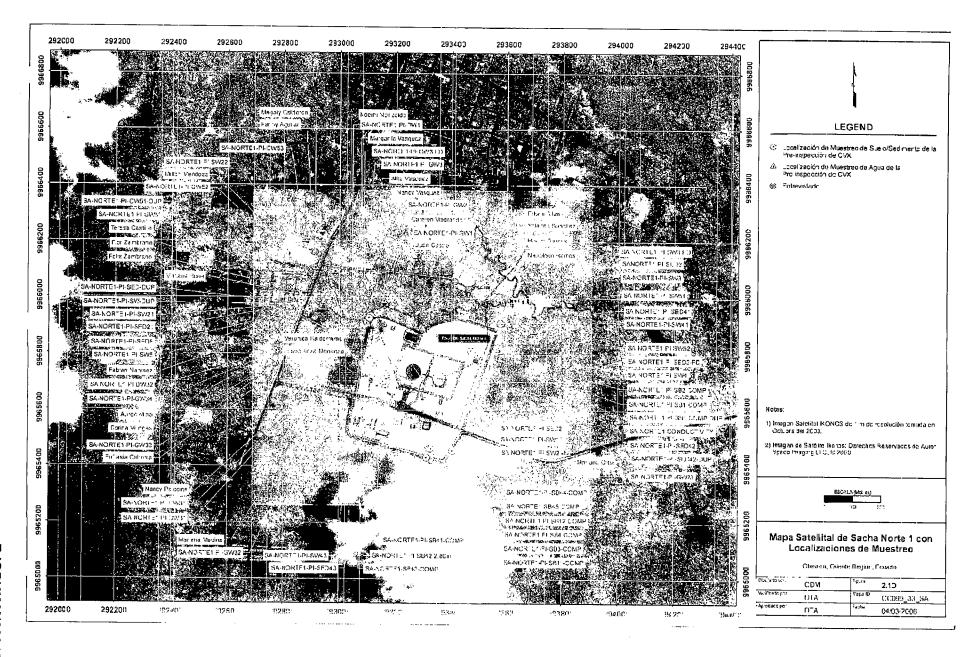


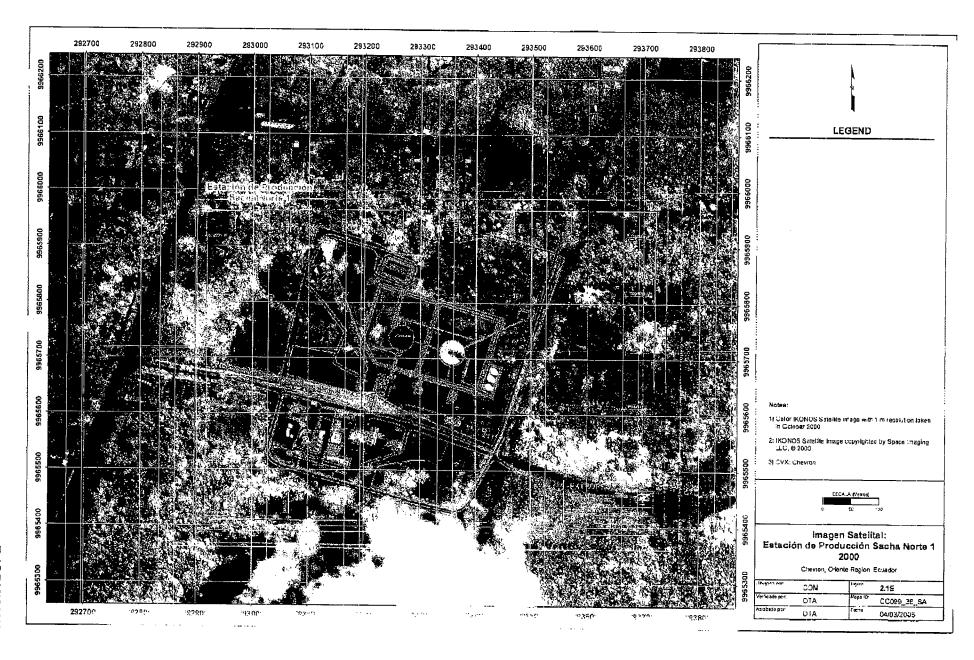
- 2.0 Chevron Pre-Inspection Activities 2003 Present
- → 2.1 Chevron Site Inspections, 2003 Present: Recent Test Results
  - 2.2 Chevron Site Inspections, 2003 Present: Sampling Logs and Soil Boring Summary Table
  - 2.3 Chevron Site Inspections, 2003 Present: Site Photos
  - 2.4 Records of Interviews Conducted by Chevron, 2003 Present











BJORKMAN00049581

Redacted

## TABLE 1 SAMPLING LOCATIONS FOR THE JANUARY 2006 PRE-INSPECTION SAMPLING AND ANALYSIS EVENT Sacha-Norte 1 Production Station

Chevron, Oriente Region, Eduador

	Loca	ation (UTM Co	ordinates)	Sample			
Sample ID	Zone	Easting	<b>Northing</b> 99657 <b>93</b> .5	Matrix SW	Sample Date   1/21/2006	General Description of Sampling Location	
SA-NORTE1-CONDUCTIVITY	18 \$	293493.8				Surface water sample collected from open vent pit in northeastern portion of station. Sample analyzed for specific conductivity only.	
SA-NOR FE1-PI-GW51	188	292875.2	9966077.1	GW	1/21.2006	Groundwater sample collected from water well located 4 m northwest from the residence of Teresa Castillo. Residence is northwest of the station and is owned by Fabio Castillo.	
SA-NORTE1-PI-GW51-DUP	188	292875.3	9966077.C	GW	1/21/2006	Same location as SA-NORTE1-PI-GW51.	
SA-NORTE1-PL-GW52	185	292861.6	9966103.3	GW	1/21/2006	Groundwater sample collected from water well located 10 m west from the residence of Millon Mendoza. Residence is northwest of the station.	
SA NORTE1-PI-GW53	18 S	292874.5	9966207.4	GW	1/21:2006	Groundwater sample collected from water well located 50 m northwest from the residence of Magaly Calderon. Residence is northwest of the station.	
SA-NORTE I-PI-SB1:-COMP	18\$	293312.2	9965432.1	Soil	1/21/2006	Soil sample collected as clean delineation bering for the closed pit located in the southeastern portion of the station. Sample location is 15 m south of the fenceline for the station and south of the road.	
SA-NORTE1-PI-SB12-COMP	18 S	293404.8	9965455.5	Soil	1/21/2006	Soil sample collected as clean delineation boring for the closed pit located in the southeastern portion of the station. Sample location is 15 m east of the fenceline for the station and east of the road.	
SA-NORTE1-PI-SB1-COMP	18.\$	293495.4	9965797.5	Soil	1/21/2006	Soi, sample collected from soil boring at northeast corner of open vent pit in northeastern portion of the station.	
SA-NORTE1-PI-SB1-COMP-DUP	18.\$	293495.6	9965796.7	Soil	1/21/2006	Same location as SA-NCRTE1-PI-SB1-COMP.	
SA-NORTE1-PI-SB2-COMP	185	293470.6	9965812.1	Soil	1/21/2006	Soil sample collected from a clean delineation boring located 20 m northwest of the vent bit in the northeastern portion of the station.	
SA-NORTE1-PI-SB3-COMP	188	293322.3	9965463.7	. Soil	1/21/2006	Soi: sample collected from soil boring within closed pit located in the southeastern portion of the statioin.	
SA-NORTE1-PI-SB4-COMP	18 S	293327.4	9965464.5	Soil	1/21/2006	Soil sample collected from soil boring within closed pit located in the southeastern portion of the station.	
SA-NORTE1-PI-SB41-COMP	18.5	293157.5	£965701.4	Soil	1/21/2006	Soil sample collected from soil boring within closed pit located in the west central portlon of the station. Area is now part of the platform for the SA-114 well site and is 45 m east of the SA-114 wellhoad.	
SA NOFTE1-PI-SB42-(2.80 M)	185	293125.4	9965767.C	\$oil	1/21/2006	Soil sample collected from delineation boring northwest of closed pit located in the west central portion of the station. Sample location is 60 m north of the SA-114 welfhead.	

Redacted
Issued: 2/6/03
Page 2 of 2

# TABLE 1 SAMPLING LOCATIONS FOR THE JANUARY 2006 PRE-INSPECTION SAMPLING AND ANALYSIS EVENT Sacha-Norte 1 Production Station

Chevron, Oriente Region, Ecuador

	Location (UTM Coordinates)			Sample	T		
Sample ID	Zone	Easting	Northing	Matrix	Sample Date	General Description of Sampling Location	
SA-NORTE1-SB43-COMP	18 \$	293109.9	9965791.6	Soil	1/21/2006	Soil sample collected from delineation boring northwest of closed pit located in the west central portion of the station. Sample location is B8 m north of the SA-114 wellhead,	
SA-NORTE1-PI-SB44-COMP	18 S	293134.3	9965944.7	Soil	1/21/2006	Soil sample collected from soil boring located on the north side of the north fenceline of the station. Sample location is in a dry historical drainage channel that leads from the northwestern corner of the station.	
SA-NORTE1-SB45-COMP	188	293104.6	9965927.3	Soil	1/21/2006	Soil sample collected from delineation boring northwest of the northwest corner of the station.	
SA-NORTE1-PI-SW41	18 S	293579.2	9965911.4	sw	1/21/2006	Surface water sample collected from a small spring that provides drainage for a channel that flows out of the northeast corner of the facility. Sample location is north of the station fenceline and south of the main east-flowing receiving stream.	
SA-NORTE1-PI-SED41	18.5	293576.2	9965908.7	Seci	1/21/2006	Same location as SA-NORTE1-PI-SW41.	
SA-NORTE1-PI-SED42	185	2935C6.4	9965757.1	Sed	1/21/2006	Sediment sample collected from dry drainge channel that forms the east boundary of the station. Sample location is 20 m southeast of the open vent pit.	
SA-NORTE1-PI-SED42-DUP	18 S	293506.7	9965757.4	Sed	1/21/2006 .	Same location as SA-NORTE1-PI-SED42.	
SA-NORTE1-PI-SW43	18 S	293076.4	\$965767.6	sw	1/21/2006	Surface water sample collected from a small stream that flows north and northwest near the west central boundary of the station. Sample location is 1 m west of the west fenceline of the station and at a point where the stream is joined by a dry drainage channel that leads west from the wash tank.	
SA-NORTE1-PI-SED43	18.5	293076.7	9965767.2	Sed	1/21/2006	Same location as SA-NORTE1-PI-SW43.	
SA-NORTE1-PI-SW51	18 S	293500.6	9965962.5	sw	1/21/2006	Surface water sample collected from a spring that is located 65 m southeast of the residence of Napolean Ramos. Drinking water is provided by a pipe that leads from the spring to the Ramos house. Residence is located northeast of the station.	
SA-NORTE1-PI-SW52	18 S	293695.3	9965883.6	sw	1/21/2006	Surface water sample collected from a spring that is located 120 m northeast of the residence of Aldubar Sarango. Drinking water is obtained from this spring. Residence is located northeast of the station and is owned by Hector Ramos.	

### Notes:

- 1. Sampling location descriptions are based on field notes taken during sampling activities.
- 2. Location based on GPS coordinates collected during sampling activities.
- 3 Geographic coordinate units: UTM
- 4. GW = groundwater; SW = surface water; Sec = sediment; DW = drinking water.
- 5. 1 = GPS coordinates taken with a handheld GPS unit.

Checked by: DTA Approved by: JMM

Date: 2/6/06 Date: 2/7/06 Hmitido: 02/03/08 Página 1 de 3

### TABLA 2.A

### RESULTADOS DEL ANÁLISIS DE MUESTRAS DE SUELO

### Inspección Prelimínar del Estación de Producción Sacha Norte 1: 21 de Enero de 2006 TPH y BTEX

Región Oriente, Ecuador

NÚMERO DE ESTACION: IDENTIFICATIÓN DE MUESTR. FECHA DEL MUESTREO: PROFUNDIDAD DE MUESTRE SUELO SUPERFICIAL O SUBS	O (METROS):		SANorte: PS SA-NOR (E (-P)-Si31-COMP 21/0 (706 0 - 3 Subsucio	SANOITET PS SA-NORTH I-PF-SBT-COMP-DUP 21/01/06 0 - 3 Substield	SANorte1_PS SA-NORTE1-PI-SH11-COMP 21/01/06 0.2 - 3.6 Subsuelu	\$ANcre1_P\$ \$A-NORTE1-PI-SB12-COMF 21/01/06 0.8 - 4 Subsuelo		
PARÂMETRO	CAS No	CRITERIO DE EVALUACIÓN	RESULTADOS					
		rng/kg	mg/kcj	rng/kg	mg/kg	т:g/kg		
Hum edad del suelo (Metodo S	M 2540G Mod.) 1	其於101841682220122222222222222222222222222222222	The second secon	3287 (1981) - Marie (1987) (1987) (1987)		0.5353333333333333333333333333333333333		
Sólidos, %	NA	N/D	68.9	70	60.2	58.4		
Humedad, %	NA NA	N/D	31.:	30	39.8	1 41.6		
TPH (Método 8015B de la USE	PA SW-846)		等的。2克以西部的CRQ、CRASHS2首先的。	s differentials control to the state of the second	是:10.300多。1889年,15.30。1993年,			
TPH DRO	I NA	10C00*	<4	<4	<4	<5		
TPH GRO	NA NA	10000	0.4J	<0,67	<b>⊲0.79</b>	<0.81		
BTEX (Métado 6260B de la US	EPA SW-846)	nedaneding argum (C)	our participation and the control of the			MA SECULO PROPERTY.		
Benceno	71-43-2	8	-		<0.002	-		
Eti benceno	100-41-4	490		-	<0.001			
Tolueno	108-88-3	650			<0.002			
Xilenos (total)	1330-20-7	4:0	•		<0.003	_		

Vorificado Por: AVB

Feeha: 02/03/06

Aprobado Por. NLH

Fecha: 62/03/36

#### Notes

- 1. Los detalles y ubicación de los puntos de muestreo se indican en la Tabla 1.
- 2. Las concentraciones detectadas por encima de los criterios de evaluación se muestran en negrillas.
- 3. Los criterios de evaluación mostrado fueron desarrollado pura los reportes de Inspección Judicial. Los criterios en Itálicas, tueron calculados siguiendo procedimientos internacionales para evaluación de nesgos aplicados a mediados de la decada de los 90.
- 4. Todos los abálisis fueron ofectuados por Severn Trent Laboratories (STL), Flouston, Texas. Los valores están reportados en base al peso en secu-
- 5. <= Parámetro analizado pero no detectado por socima del limite de detección especificado; -= Parámetro no se analizó en este evento de muestrec;
  - NA No Aplica; N/D = No esta Disponible
- 6. B = Fl analito lue datectado en la muestra en una concentración menor a 5 veces la concentración detectada en el Blanco del Método.
  - J = Valor estimado entre al fimite a reportar (RL) y el límite de detección (MDL) del compuesto.
- 7. BTEX e Bericeno, tolueno, etilbenceno, y xilenos GRO e Compuestos Orgánicos en el Rango de la Gasolina; DRO e Compuestos Orgánicos en el Rango de Diasel.

  1CLP = Procedimiento para la Caracterización de Toxicidad de Lixiviado; TPH = Hidrocarburos Totales de Petróleo.
  - \* = Criterio de tévaluación aplicado a la suma de TPH-DRO y TPH-GRO

BJORKMAN00049584

Emitido: 02/03/06 Página 2 de 3

#### TABLA 2.A

### RESULTADOS DEL ANÁLISIS DE MUESTRAS DE SUELO

### Inspección Preliminar del Estación de Producción Sacha Norte 1: 21 de Enero de 2006

### TPH y BTEX

Region Oriente, Ecuador

				·				
NÚMERO DE ESTACIÓN: IDENTIFICATIÓN DE MUEST	ΈΛ.		SANorte1_PS SANORTE1-PLSB2 COMP	SANorie1_PS SAINOFLET-PI-SB3 COMP	SANorte1_PS SA-NORTE1-FI-SB4-COMP	SANorte1_PS		
ECHA DEL MUESTRED:	nm.					SA-NORTE1-PI SB41-COM		
	EO METOORI		21/01/06	21/01/06	21/01/05	21/01/06		
RIDFUNDIDAD DE MUESTR	•		0-3	0.3	0 - 3	0.9 - 3.1		
SUELO SUPERFICIAL O SUE	SUELO:	- <del></del>	Subscelo	Subsuelo	Subsuelo	Subsuelo		
PARÁMETRO	CAS No.	CRITERIO DE EVALUACIÓN	RESULTADOS					
		tng/kp	mg/k:g			rng/kg		
iumedad del suelo (Metodo	SM 2540G.Mod.)	ા ન ના નામ કું તાલુક કું કું કું હતું કું જો છે.	mg/kg			A Control of Park Suprement Control (Ch.)		
Só'dos, %	NA	N/D	71.7	60.6	56.8	69.3		
Humedad, %	NA	MD	28.3	39.4	43.2	30.7		
Pil (Método 8015B de la US	EPA SW-846)		The second secon		natanjase sig a kompa			
TPH DHO	NA	10,000°	<4.	<4	<5	7,5100		
TH GRO	NA		<0.66	<0.78	<0.83	49		
TEX (Método 82608 de la U	ISEPA SW-846)		Long Charles Spinson Section	TO BE WANTED BY THE PARTY OF TH	Carriage Arthe Rat Detail			
Bandeno	71-43-2	· · · · · · · · · · · · · · · · · · ·	· -	-	•	<0.001		
Etilbenceno	100-41-4	400			-	<0.001		
Tolaeno	108-88-3	950				<0.002		

#### Notas

- 1. Los detalles y ubicación de los puntos de muestreo se indican en la Tabla 1.
- 2. Las concentraciones detectadas por encima de los critorios de evaluación se muestran en negrifías.
- 3 Los criterios de evaluación mostrado lueron desarrollado para los reportes de Inspección Judicial. Los criterios en itálicas, fueron calculados siguiendo procedimientos internacionales para evaluación de riesgos aplicados a mediados de la decada de los 90.
- 4. Fodos los análisis fueron efectuados por Severn Trent Eaboratories (STL), Houston, Texas. Los valores están reportados en base al peso en soco,
- < » Parámetro analizado pero no detectado por encima del limite de detección especificado; » Parámetro no se analizó on este evento de muestreo;</li>
   NA » No Aplica; N/D ». No está Disponible
- 6. B = El ana ito lue detectado en la muestra en una concentración menor a 5 veces la concentración detectada en el Blanco del Método.
- J = Valor estimado entre el límite a reportar (RL) y el firnite de detección (MDL) de compuesto.
- 7. BTEX Bencenc, tolueno, etilbenceno, y xilenos; GRO = Compuestos Orgánicos en el Rango de Baselina; DEO = Compuestos Orgánicos en el Rango de Diesel. TOLP : Procedimiento para la Caracterización de Toxicidad de Lixiviado; 3794 : Hidrocarburos Totales de Petráleo.
  - \* « Criterio de Evaluación aplicado a la suma de 1PH-DRO y IPH-CRO

BJORKMAN00049585

Emilico: 02/03/06 Página 3 de 3

# TABLA 2.A RESULTADOS DEL ANÁLISIS DE MUESTRAS DE SUELO Inspección Preliminar del Estación de Producción Sacha Norte 1: 21 de Enero de 2006 TPH y BTEX Hegión Oriente, Ecuador

NUMERO DE ESTACIÓN: IDENTIFICATIÓN DE MUESTR FECHA DEL MUESTREO: PROFUNDIDAD DE MUESTRE SUELO SUPERFICIAL O SUBS	O (METROS):		SANoric*_PS SA-NORTE1-PI-SB42-2.80M 21/01/06 2.8 - 3.1 Subsuelo	SANorte1_PS SA-NORTE1-PI-S/344-COMP 21/01/06 0 3 - 0.5 Subsueto	SANorte1_PS SA-NORTE1-SB43 COMP 21/01/06 0.4 - 3.4 Subsuelo	SANortet PS SA-NORTE1-SB45-COMP 21/01/06 0 - 3.2 Subsuete			
PARÁMETRO	CAS No.	CRITERIO DE EVALUACIÓN	RESULTADOS						
		mg/kg	mg/kg	mg/kg	mg/kg	:ng/kg			
Hunredad del suelo (Metodo S	M 2840G Mod.)	O THE TOTAL WAR THE SERVE	THE PARTY OF THE P		Secretary Commence to the Commence	THE STATE OF THE S			
Sclidos, %	NA NA	N/D	63.1	61.1	67	66.1			
Humedad, %	NA	ŃΦ	36.9	38.9	33	33.9			
TPH (Método 8015B de la IJSE	PA SW-846)				**************************************				
TH'H DHO	NA	10000	440	(1800>	(20)	<4			
TPH GRO	NA NA		0.590	<0.77	<0.7	<0.71			
STEX (Mětodo 8260B de la US	EPA SW-846) 🐇	用2年/阿罗斯克斯克克斯克克斯斯	<b>第120分钟,并是是特别的企业的美国内部</b>	<b>经数据的</b> 医多种性病 中心的		SW CO. C. SHIPPING MASS AS			
Bendend	71-43-2	8	<0.002	<0.002	<0.002	<0.002			
Etilbenceno	100-41-4	400	<0.001	<0.001	<0.001	<0.001			
Tahieno	108 88 3	<i>650</i>	<0.002	<0.002	U-00-U	C.004J			
Xilenos (total)	1330-20-7	410	< 0.003	<0.003	<0.003	<0.003			

#### Notas

- 1. Los detalles y ubicación de los puntos de muestrao se indican en la l'abla 1.
- 2. Las concentraciones detectadas por encima de los criterios de evaluación se muestran en negrillas.
- 3. Los criterios de evaluación mostrado fueron desarrollado para los reportes de Inspección Judicial. Los criterios en itálicas, fueron calculados siguiendo procedimientos internacionales para evaluación de riesgos aplicados a mediados de la decada de los 90.
- 4. Todos los análisis fueron efectuados por Severn Trent Laboratories (STI), Houston, Texas Los valores están reportados en pase al peso en seco-
- 5. <= Parámetro analizado pero no detectado por encima del límite de detección especificado; : Parámetro no se analizo en este evento de muestroa; NA = No Aprica; N/D = No está Disponible
- 3 B El analito fue detectado en la muestra un una concentración menor a 5 veces la concentración detectada en el Blanco del Método
  - J ≠ Valor estimado entre el límite a reportar (RL) y el límite de detección (MD) ) del compuesto.
- 8TEX = Banceno, folueno, etilboncono, y xilenos; GRO = Compuestos Orgánicos en el Rango de la Gasolina; DRO = Compuestos Orgánicos en el Rango de Dioset.
   FCLP = Procedimiento para la Caracterización de Toxicidad de Lixiviado; TPR: 1Pdrocarburos Totalos de Petrólec.
  - \* = Criterio de Evaluación aplicado a la suma de TPH DRO y TPH-GRO